BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Joint Application of Nevada Power Company d/b/a NV Energy and Sierra Pacific Power Company d/b/a NV Energy for approval of their 2027-2046 integrated resource plan, 2027-2029 Action Plan and 2027-2029 Energy Supply Plan.	Docket No. 26-05___

VOLUME 34 OF 41

TECHNICAL APPENDIX
DEMAND SIDE MANAGEMENT PLAN

DSM-1

Demand Side Management Option/Risk Evaluator User Manual

2022

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1 Introduction

1.1 What is DSMore?

The Demand Side Management Risk/Option Evaluator (DSMore)[1] is an innovative, accurate, and robust program cost effectiveness screening tool. It models Energy Efficiency (EE), Demand-Side Management (DSM), and Demand Response (DR) programs while accurately correlating weather, loads, and prices on an hourly level. DSMore was developed by Integral Analytics (IA) for program design and evaluation within both regulated and deregulated markets.

DSMore is built around basic cost-effectiveness testing, but uses advanced statistical analysis to provide the user with results that can be used to assess program risk. The relationship between prices and loads is captured at the hourly level to accurately measure the risk-based DSM value, and to clearly quantify the true impact of weather on program cost-effectiveness. DSMore users can quickly look at different variables (e.g., incentive levels and administrative costs) to determine the program risks and the opportunities for program improvements.

1.2 Core Features

Some of DSMore's core features include the following:

- Calculates all standard cost-effectiveness tests
- Calculates a range of results under different weather and price assumptions for each test simultaneously
- Market-based and cost-based evaluation methodologies
- User-friendly Microsoft Excel interface
- Option-value results for assessing risk (i.e., Long-Term Cost Benefit Test Result)
- Load curves can be adjusted to match desired customer type or load
- Multiple years of weather data correlated to prices and loads
- Fast results – measure screening processing time of 3 to 20 seconds, depending on run-mode and PC hardware.

1.3 Additional Features

In addition to the core measure and program screening features, DSMore includes additional tools to help the user conduct further analysis of the screening results. These additional tools include:

[1] Terms and acronyms used in this user manual are defined in Section 11.

- Batch tool for easy and fast processing of multiple measures in one step
- Aggregation tool to group results by measure types, programs, or portfolios without recalculating
- Functionality to interface with @Risk and Crystal Ball for stochastic risk and sensitivity analysis
- Interfaces with DOE-2 to simplify the evaluation of weather-dependent measures
- Calculates greenhouse gas savings based on plant dispatch to get accurate impacts by measure

2 Program Cost-Effectiveness

2.1 Why Program Cost-Effectiveness?

Evaluating the cost-effectiveness of energy efficiency is essential to understanding how energy efficiency and other demand-side resources compete with the broad range of other resource options, in order for energy efficiency to get funding necessary to succeed.[2]

2.2 Cost-Effectiveness Overview

In its simplest form, energy efficiency cost-effectiveness is measured by comparing the benefits of an investment to the costs.

Each of the tests considers the impacts of energy efficiency programs from different points of view in the energy system. Each test provides a single stakeholder perspective; however, together the testes can provide a comprehensive view of the program. The tests are used to help program planners design the programs by answering the following questions.

- Is the program effective overall?
- Are some costs or incentives too high or too low?
- What will be the impact on customer rates?

Each cost-effectiveness test shares a common structure. Each test compares the total benefits and the total costs in dollars from a certain point of view to determine whether the overall benefits exceed the costs. A test passes cost-effectiveness if the benefit-to-cost ratio is greater than one and fails if it is less than one.

$$Benefit-Cost\ Ratio = \frac{Benefits}{Costs} = \frac{NPV\ \sum benefits\ (\$)}{NPV\ \sum costs\ (\$)}$$

2.3 Cost-Effectiveness Test Types

There are five primary cost-effectiveness tests that are used for energy efficiency program evaluation. Each test is described in the tables below. The following table shows the objective and comparison of each test.

[2] Throughout this manual, "energy efficiency programs" also include demand response programs and other demand-side management programs.

Cost-Effectiveness Test	Objective	Comparison
Participant Cost Test (PCT)	Are there positive benefits to the customer?	Costs and benefits of customer installing measure
Utility/Program Administrator Cost Test (UCT)	Will utility bills increase?	Program administration cost to supply-side resource costs
Ratepayer Impact Measure Test (RIM)	Will utility rates increase?	Program administration cost and utility bill reductions to supply-side resource costs
Total Resource Cost Test (TRC)	Will the total cost of energy in the utility service territory decrease?	Program administrator and customer costs to utility resource savings
Societal Cost Test (SCT)	Is society better off as a result of the installed measure?	Society's costs of energy efficiency to resource savings and non-cash costs and benefits

The following table shows the accounting of each cost and benefit for each test.

Costs and Benefits	PCT	UCT	RIM	TRC	SCT
Avoided energy costs (fuel, O&M[3] of power plants and T&D[4] lines)		Benefit	Benefit	Benefit	Benefit
Avoided capacity costs (constructing power plants, T&D lines, pipelines)		Benefit	Benefit	Benefit	Benefit
Other benefits (fossil fuel savings, water savings, equipment O&M, etc.)				Benefit	Benefit
Externalities (environmental benefits like emissions reductions)					Benefit
Participants' incremental cost (above baseline) of efficient equipment	Cost			Cost	Cost
Program administration costs (staff, marketing, evaluation, etc.)		Cost	Cost	Cost	Cost
Incentives (rebates)	Benefit	Cost	Cost		
Lost utility revenue/lower energy bills (due to lower sales)	Benefit		Cost		

2.4 California Standard Practice Manual Compliance

[3] Operations & Maintenance

[4] Transmission & Distribution

2.4.1 What is the California Standard Practice Manual?

In 1983 the *Standard Practice for Cost-Benefit Analysis of Conservation and Load Management Programs*, based on the California Energy Commission standards, was published to provide "official" cost-effectiveness guidelines for utility sponsored programs. This publication has been revised over the years and has become known in the industry as the California Standard Practice Manual, or simply the Standard Practice Manual (SPM).

2.4.2 DSMore Alignment with SPM

Wherever possible, DSMore follows the precepts of the California Standard Practice Manual in the derivation of benefit-cost ratios and calculations. The California Manual was developed during the 1980s and 1990s, prior to the advent of more powerful computing resources. As such, DSMore tends to take advantage of this new computing power in ways that were not available at that time, and hence were not contemplated at the time the California Manual was developed.

For example, DSMore's Option Value Test values EE programs over several forward curves and over several hourly weather scenarios, to arrive at an overall long run test result expectation for the program. This set of calculations was not available to computer users during the 1990s, and hence we see no mention of this more robust type of valuation test result in the Standard Practice Manual.

The Standard Practice Manual is recognized as the industry standard for determining cost-effectiveness and DSMore follows the underlying procedures laid out in the Manual. However, we also recognize that new methods and new approaches to cost-effectiveness measurement have, and will, emerge within the industry, given new processing capabilities, the advent of new microgrid resources, and changes in marginal cost estimation. As such, we encourage users to think more broadly about the valuation of energy efficiency than what is portrayed in the California Manual, where appropriate.

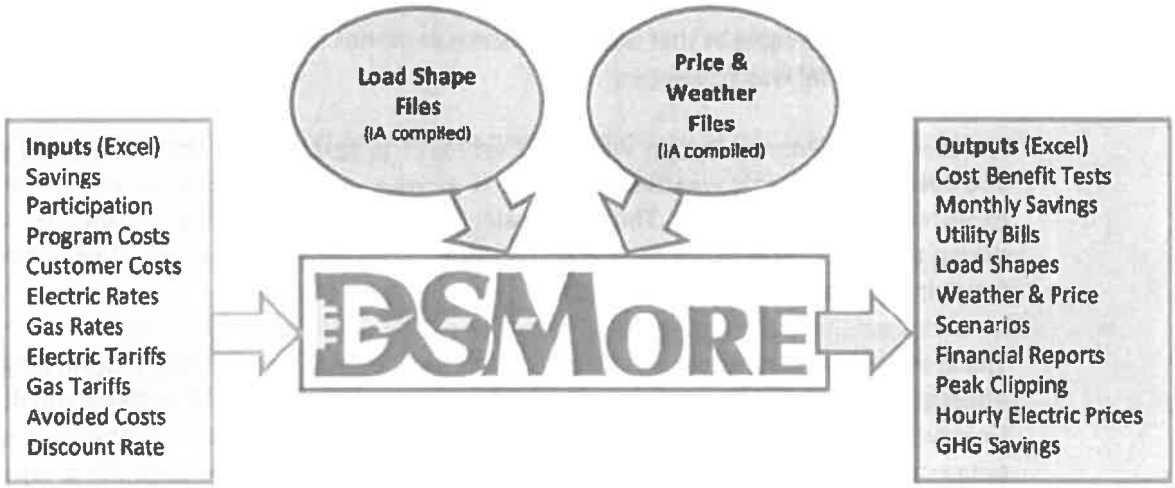
3 DSMore Application Overview

This section presents any overview of the DSMore application and general instructions on how to the use the application. Detailed description of the program inputs and outputs can be found in subsequent sections.

3.1 Overview of DSMore

DSMore uses a set of program inputs combined with preconfigured load shape and price data to calculate the five cost-effectiveness tests as well as other program analyses.

The following figure provides an overview of the DSMore application and how the key inputs are related to the application engine.



3 1.1 User Interface

Clients interact with DSMore through an Excel workbook.

3.1.2 Client Inputs

Clients enter program input data through the first two tabs (worksheets) of the DSMore workbook.

3.1.3 IA Inputs

IA produces a custom set of hourly loads and prices over a 30+ year period for each customer. The load files are specific to the customer class served by the energy efficiency program.

3.1.4 Running DSMore

The user enters the measure information data into Excel, selects the appropriate load file, selects the appropriate price file, and executes DSMore.

3.1.5 Outputs

DSMore uses the measure information data, the load file, and the price file to calculate the cost-effectiveness tests, and then exports the results into the same Excel workbook (i.e., worksheet tabs 3 through 8).

3.2 Installation

This section contains the system requirements and instructions for downloading and installing DSMore on a computer.

3.2.1 Contact Information

Please contact DSMore@integralanalytics.com if additional support is needed.

3.2.2 System Requirements

DSMore runs as a COM add-in to Microsoft Excel on Microsoft Windows.

DSMore will copy files to the computer (to the user's "AppData" folder by default) and modify the registry so that Excel recognizes the add-in.

If the user does not have the necessary permissions, then IA can also make an "admin installer" available. The admin installer requires administrator permissions to run, but will install DSMore for all users on the computer.

Below are detailed hardware and software requirements.

3.2.2.1 Hardware Requirements

DSMore requires a PC capable of running Microsoft Windows and Microsoft Office. A faster processor and faster hard drive (e.g., SSD) will improve DSMore's performance. Additional

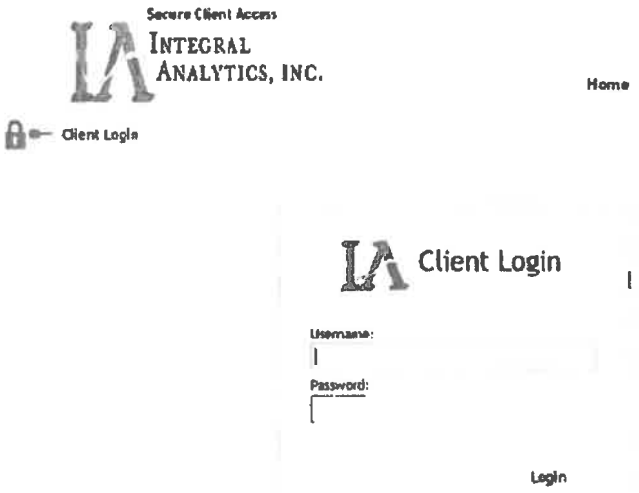
memory (RAM) will not impact performance significantly, as long as there is enough memory to run Excel optimally.

3.2.2.2 Software Requirements

- Microsoft Windows XP or higher, 32-bit and 64-bit.
- Microsoft Office 2010 or higher, 32-bit and 64-bit.
- Microsoft .NET 4.6.1 (usually installed by default).
  - https://www.microsoft.com/en-us/download/details.aspx?id=49982

3.2.3 Downloading DSMore

DSMore is packaged into a single installation file that is downloaded from IA's secure download site (https://files.integralanalytics.com/login). The user will receive instructions by email with login instructions to download DSMore from the secure download site.



The installer contains the DSMore program and documentation, along with the load shapes and price files that were created for the user's company.

3.2.4 Installing DSMore

3.2.4.1 Installation

The installation process for DSMore is simple and should only take a few steps:

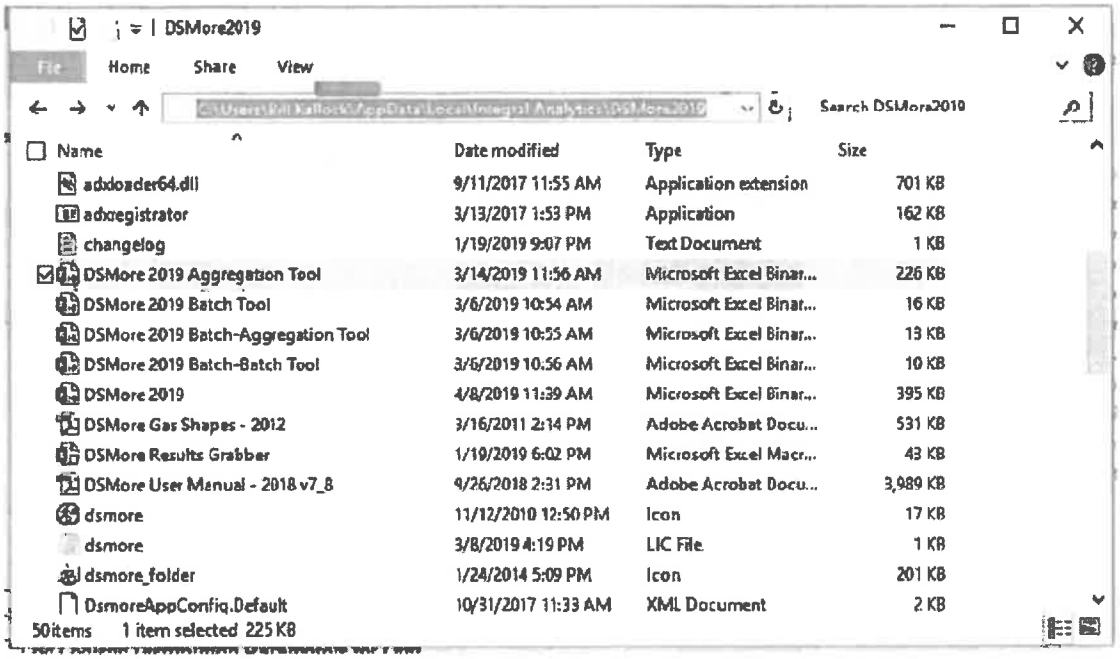
1. Close out of Microsoft Excel if it's open (the DSMore installer will issue a warning if it detects that Excel is still open).

2. Run the DSMore installer by double-clicking the setup file downloaded in the previous section.
3. Step through the installation wizard (shown below), accepting the default values in each step.

3.2.4.2 Desktop Files

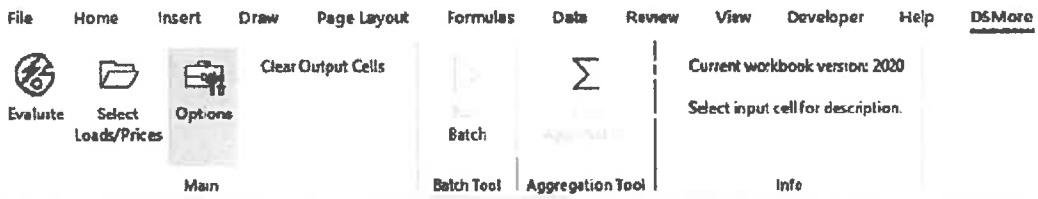
After the installation, there will be two new icons on the computer desktop: the DSMore installation folder and the default DSMore workbook. Since the path to the installation folder can be long and difficult to remember, a desktop icon is provided to reach the files quickly.

The folder includes all the files needed to use DSMore: the user manual, the default DSMore template, the batch tool, the aggregation tool, and other supporting files. Below is an example of the DSMore file folder.



3.2.4.3 Ribbon Verification

Open the default DSMore workbook by double-clicking the desktop icon, and make sure the DSMore ribbon tab (shown below) appears in Excel.



The DSMore ribbon tab is used to select a load shape and price files. The Evaluate button executes DSMore and produces results in the orange output cells.

4 Using DSMore

4.1 Excel Interface

The DSMore model is designed for inputs and outputs to be entered and displayed in an Excel spreadsheet. Using Excel as the interface has a number of advantages.

1. Excel is a familiar tool to many analysts and does not require learning a complicated series of menu screens.
2. All the functionality and advantages of Excel are available.
    a. Simplifies customized DSMore inputs, such as program costs by year or incorporating user defined ways to input costs or participant data
    b. Allows the use of other cells, elsewhere in Excel, to feed DSMore input cells.
3. All outputs are produced within Excel worksheets, which allows for customized reports and analyses using the output.

4.2 Opening DSMore

The default spreadsheet provided with DSMore is "DSMore 2022.xlsb" (or the current year) and by default is installed in:
"C:\Users\<user name>\AppData\Local\Integral Analytics\DSMore".

A shortcut icon is also placed on the user's desktop. Double-clicking the DSMore icon on the desktop will open this default spreadsheet.

4.3 DSMore Workbook Structure

DSMore takes the inputs specified within the input worksheets (the first two worksheet tabs) and returns the outputs into the remaining worksheet tabs. The input worksheets are sectioned into different blocks of inputs that pertain to the specific inputs for designing a DSM program, e.g., costs and load savings for the program.

DSMore references worksheets using the worksheet name by default, instead of the worksheet index. This allows worksheets to be re-ordered, so that frequently used worksheets can be placed near the left side. This also allows new worksheets, e.g., custom worksheets, to be inserted between the DSMore worksheets without interfering with the

DSMore calculations. Existing Batch Tools that reference the worksheets by index will still function correctly.

The DSMore workbook contains the following worksheets:

Worksheet Name	Function
Program Input	Data inputs for the program to be evaluated
Utility Input	Utility specific data, e.g., electric rates
Test Results	Results of the five benefit-cost tests and supporting data
Loads & Bills	Participant and program model loads and utility bills
Financial Reports	Reports on the annual financial metrics of the program
TOU	Details of the time of use (TOU) rate (pre- and post-)
Peak Clipping	Summary of the demand response mode
Loadshapes	Presents the load shapes and savings shapes that are used in the program analysis
AVERT	Reduction in greenhouse gas emissions based on the Environmental Protection Agency (EPA)'s Avoided Emissions and Generation Tool (AVERT)
Hourly Electric Prices	Optional report tables for the average hourly weekday and weekend hourly market-based and cost-based electric prices
End Use	Allows the use of the Electric Power Research Institute (EPRI)'s end-use load shapes to create a savings load shape
Financial Reports Ext	Presents all the yearly financial cashflows for programs exceeding 25 years

4.4 Data Entry

4.4.1 Cell Colors

Color	Meaning	Notes
Light Green	Input	Do not move or relocate.
Peach	Output	Do not move or relocate. If the user enters something, it will be overwritten by the model output.
Other	Informational – can be edited	The user may edit, fill in, delete, or change as desired.

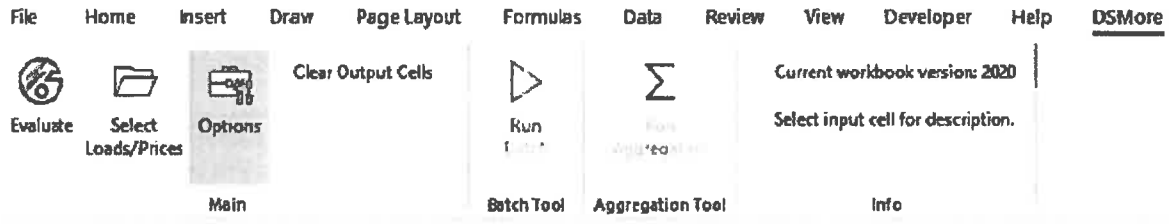
Many users will create custom calculations that use the results in the output cells. These calculations can be used for custom reports, or updating a profit and loss (P&L) statement, or other uses. Similarly, some users will use their own set of detailed program cost inputs, which then get aggregated automatically into the DSMore Program input worksheet, prior to running.

4.4.2 Saving Files

Each time the user runs an analysis for a program or a program scenario, they should save the default spreadsheet under a new name to preserve the results. Every new run in a spreadsheet will overwrite existing output in the same folder, so if the results haven't been saved, they will be lost. Saved spreadsheets can be opened and used as templates for analysis anytime in the future by double-clicking on the desired spreadsheet instead of the DSMore icon.

4.5 DSMore Menu

When DSMore is installed, a new menu is added to the Excel toolbar and will be labeled according to the version of DSMore that is being run, e.g., DSMore 2022.

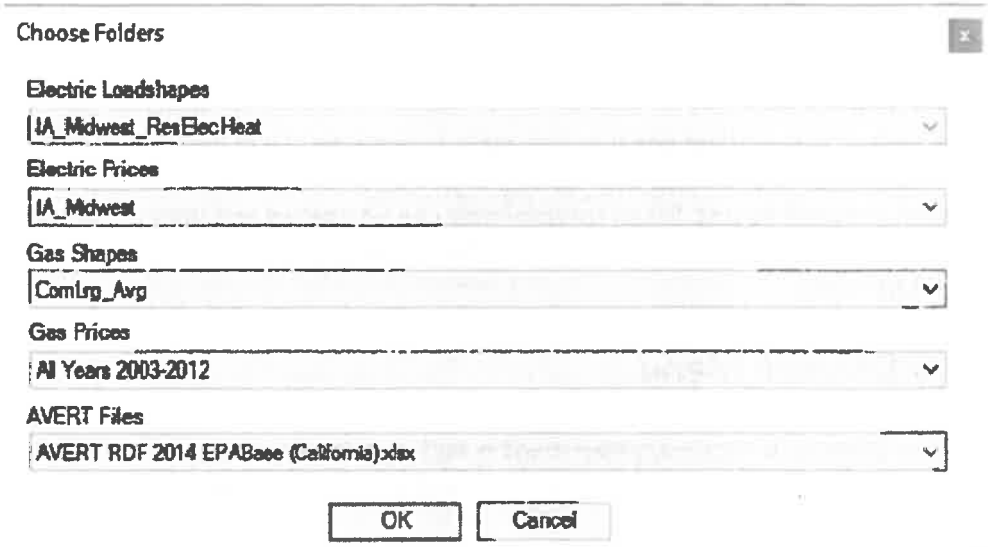


4.5.1 Evaluate

Evaluate is used to run DSMore after all the inputs have been entered, and the load shapes and price files have been selected.

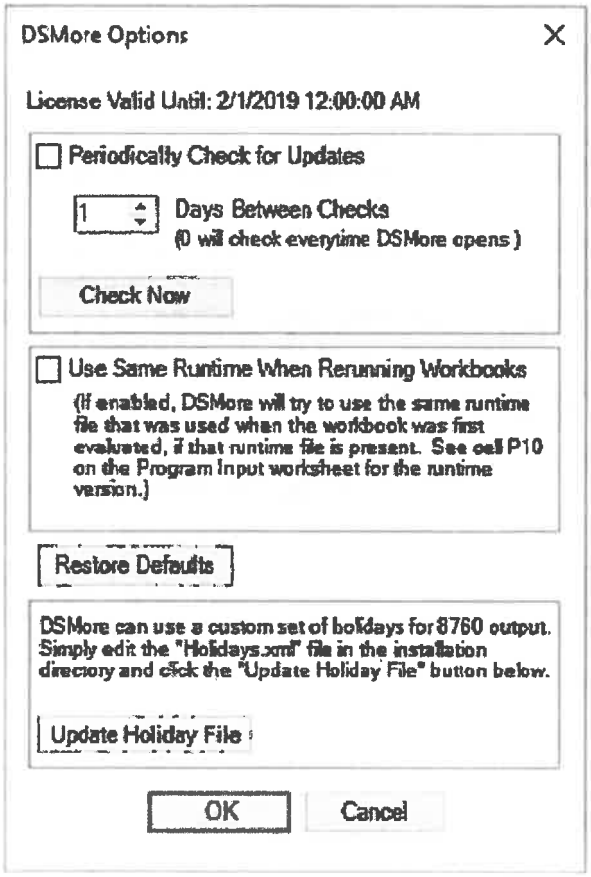
4.5.2 Select Loads/Prices

Select Loads/Prices opens a dialog box (shown below) from which electric load shapes, electric prices, gas load shapes, gas prices, and AVERT files can be selected from the DSMore library of files. DSMore will not run until these files have been selected.



4.5.3 Options

Options opens an Options dialog box (shown below) that allows the user to manage DSMore options.



4.5.3.1 Periodically Check for Updates

DSMore offers automatic updates, so the latest code can always be used when evaluating programs. DSMore will check for updates based on the schedule entered in the Options menu. If zero is entered for the numbers of days, the program will check every time that DSMore is opened.

The user can also turn off automatic updates but will have to manually check for updates. If a new version is available, the user can choose to either download the update or decline the update.

4.5.3.2 Use Same Runtime When Rerunning Workbooks

Older versions of the DSMore engine are not overwritten on the user's machine. This allows the user to rerun previous runs of DSMore with the DSMore engine that did the original run. This is configured by selecting the checkbox for this option.

4.5.3.3 Update Holiday File

The file "Holiday.xml" found in the DSMore installation folder can be modified to match the user's list of holidays. The user can apply the updated holidays in DSMore by clicking on the options button in the DSMore menu and then clicking on the "Update Holiday File" button. DSMore will look for the "Holidays.xml" file and import the updated the list of holidays. The next time DSMore runs, it will use the updated list of holidays. This update only needs to be performed when the "Holidays.xml" file is modified.

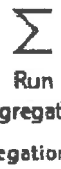
4.5.4 Clear Output Cells

Clear Output Cells erases the data in all the output cells (orange). This can be useful when comparing runs to confirm that all the outputs have been updated between runs.

4.5.5 Run Batch

Run Batch runs the batch tool, which is described in Section 10.1.

4.5.6 Run Aggregation



Run Aggregation runs the aggregation tool, which is described in Section 10.3.

4.5.7 Info

Current workbook version: 2020

Select input cell for description.

Info

The info panel provides the current workbook version and summaries of the data entry cells. When the user selects a data input cell, the info panel will describe the input cell in more detail.

4.6 Evaluating Program – Running DSMore

After the program data has been entered into the input worksheets and the appropriate load shape and price files have been selected, then the program can be evaluated using DSMore.

The evaluation of the program is done by clicking on the Evaluate button on the DSMore menu.

Once the program has completed the run, the "Last Run" date and time in 'Program Input' tab, cell M10 will be updated and the "Please Wait" message will close.

4.6.1 Optional Calculations

While DSMore has been designed from the ground up to process thousands of scenarios as quickly as possible, there may be occasions that the user wants to skip some option calculations to further speed up the DSMore runs.

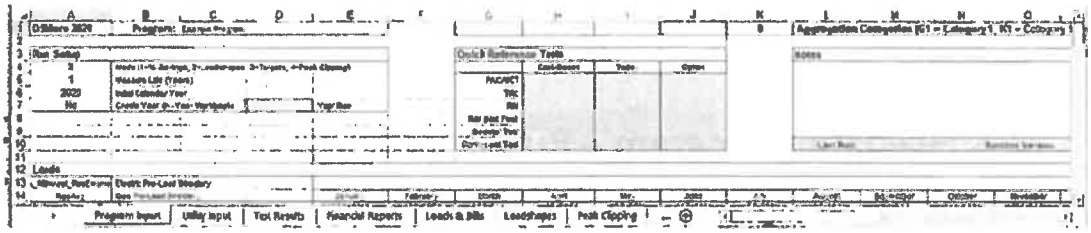
The following switches turn off DSMore optional calculations and improve the processing time of each run:

Optional Calculation	Off Switch Location
Price Summaries	'Loads & Bills'!A38 = 0
Hourly Electric Price	'Hourly Electric Prices'!A2 = 0 (default is off)
AVERT GHG Calculator	'AVERT'!B2 = "No"

5 Program Input Worksheet

This section describes program inputs and specifically the input features shown on the DSMore Program Input worksheet.

5.1 Program Setup Inputs (Program Inputs Rows 1-14)



The first set of rows in the Program Input sheet are where the basic program data is entered.

5.1.1 Run Setup

Run Setup			
3	ode (1=% Savings, 2=Loadshapes, 3=Targets, 4=Peak Clipping)		
1	Measure Life (Years)		
2020	Initial Calendar Year		
No	Create Year-By-Year Workbooks	All Years	Year Ran

5.1.1.1 Run Mode

Cell A4 is the input for the DSMore run mode.

DSMore provides a number of alternative ways to assign program load inputs and load savings. The key to these alternative methods is Mode input in cell A4 of the Program Input worksheet.

Mode O tions

Currently DSMore can be run using one of six different modes.

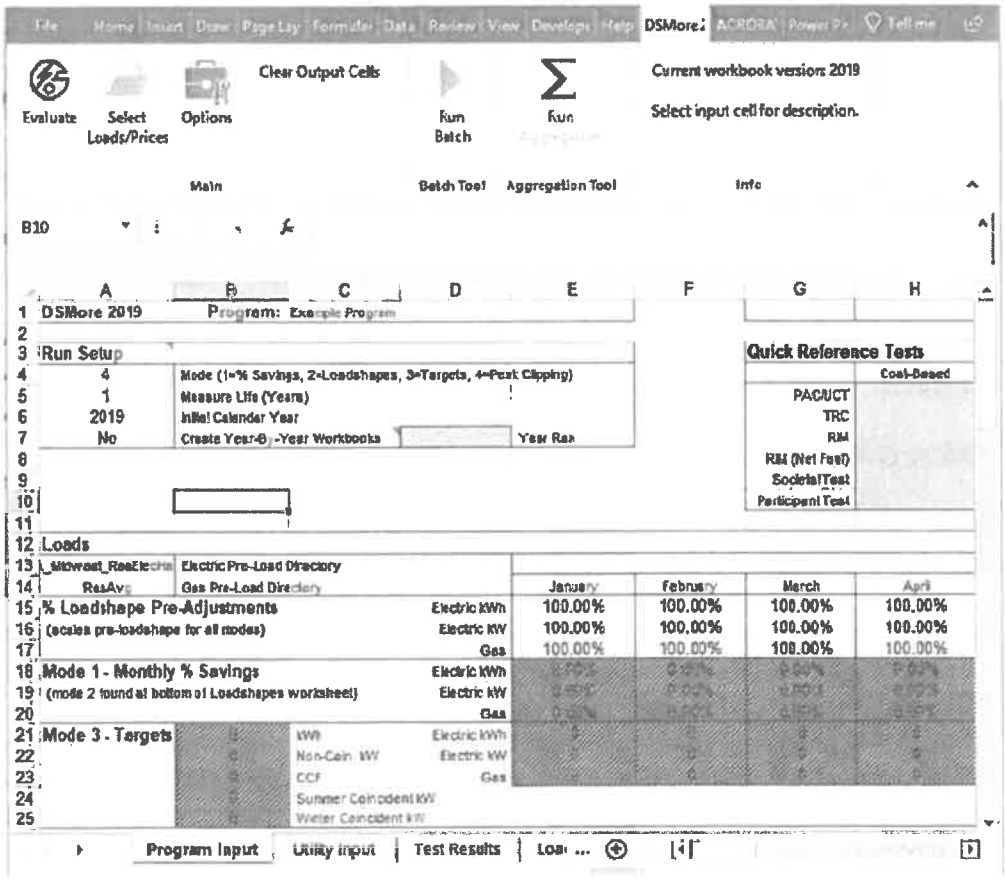
1. Monthly % Savings
2. Custom Load Shapes
3. Targeted Reduction
4. Peak Clipping

Reminder:
Orange shaded cells are DSMore output cells
Green shaded cells are data input cells.

5. TOU (Time of Use)
6. Snapback

Mode Input Coloring

The Program Input worksheet contains setup cells that are specifically designed for each Mode, which will be detailed below. DSMore keeps track of the Mode, and shades those input cells that are not used by the selected Mode. For example, in the figure below Mode 4 Peak Clipping is selected. The input cells for Modes 1 and 3 are shaded gray, to help the user know where to enter data.



Mode 1 Monthly % Savings

The Monthly % Saving mode adjusts the pre-load shape to the percentage set in the cells by the months in the Monthly % Saving rows (E18:P20).

If the percentage set in Row 18 for Electric kWh for each month is 10%, then 10% of the baseline load shape kWh will be saved. This is the same method for the Electric kW Peak and Gas rows. The % Saving adjustments can be varied by month to reflect seasonal or monthly variances.

Where the Monthly % Saving is 0%, no savings will be observed. In this manner, the user can customize a monthly load savings shape to match expectations, or M&V findings from third party evaluation reports. The monthly output report in the Loads & Bills worksheet is used to confirm that the savings has been entered correctly.

The % kW Saved entered in Row 19 is used to calculate the Non-Coincident Peak kW Saved at the severe weather scenario (95th Percentile). This Non-Coincident kW Saved is converted to Coincident Peak kW Saved (95th Percentile) using the ratio of the Coincident Peak kW to non-coincident Peak kW from the load shape.

The coincident peak kW Saved for Mode 1 is calculated using the following equation:

$$\text{Coincident Peak kW Saved (95\%)} = \frac{\text{Coincident Peak kW (50\%)}}{\text{Non-Coincident Peak kW (50\%)}} x \text{ Non-Coincident Peak kW Saved (95\%)}$$

Mode 2 Custom Loadshapes

Mode Overview

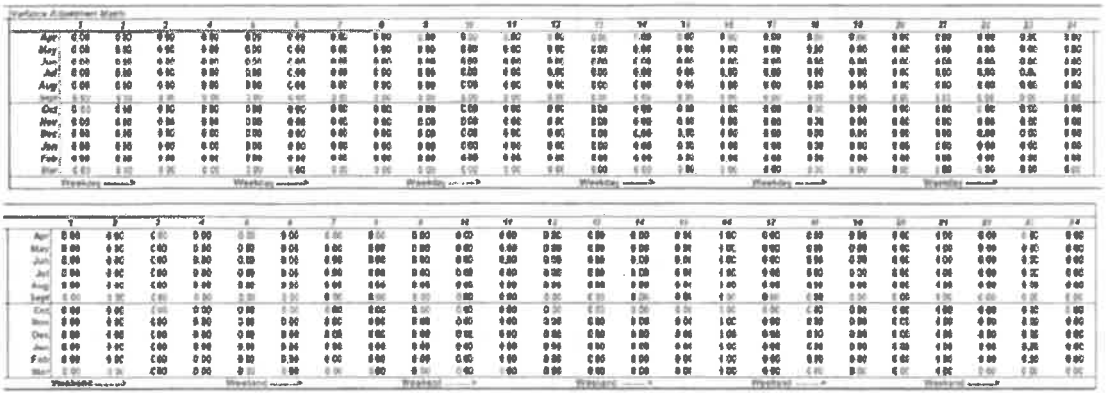
The Custom Loadshape mode (Mode 2) allows the user to design unique hourly savings profiles by editing the different default loads to create pre- and post-program load shapes.

Unlike the other modes, the data input for this mode is in the **Loadshapes** worksheet. This mode takes more time to set up than Modes 1 and 3 but allows hourly savings variances.

Most DSM programs have proportional monthly savings or percentage type savings, which lend themselves more readily to analysis in the % Savings mode (1) or the Target Mode (3), but there are a few cases where adjusting the hourly load savings directly at the hourly level is preferred. Examples of these types of measures are thermal storage, programmable thermostats with unique daily savings expectations, or lighting savings that are the same for each hour.

Variance Adjustment Matrix

Measures that are **not weather sensitive** (like lighting, some motors, refrigerators) are more accurately modeled within DSMore Mode 2, by setting the average load shape savings to the expected values and setting the weather variability influences to zero (see Loadshapes worksheet, Variance Adjustment Matrix, starting at cell BF175).



Load Shape Data

The Load shape data matrix is produced as shown in the figure below in the top left of the "Loadshapes" tab. The figure only shows the first six weekday hours (1 AM to 6 AM) for just the pre-load shape. The actual model will include hourly load shapes for average weekday and average weekend by month. The load shapes are grouped by season to keep the months together, which is easier to view graphically.

- Spring/Summer (April – September)
- Fall/Winter (October – March)

	A	B	C	D	E	F	G	H
1	Incoming							
2	DSMore		Weekday Hours →					Wee
3	Load Shape		1	2	3	4	5	6
4	Pre	Apr	8.45	8.44	7.80	7.80	7.81	9.62
5	Spring	May	8.79	8.71	8.01	7.95	7.92	9.86
6	Summer	Jun	9.48	9.36	8.47	8.39	8.33	9.85
7		Jul	10.14	10.05	9.07	9.00	8.95	10.47
8		Aug	10.06	9.98	9.05	8.99	8.95	11.01
9		Sept	8.95	8.86	8.28	8.19	8.15	10.68
10	Pre	Oct	8.29	8.27	7.59	7.58	7.56	9.59
11	Fall	Nov	8.82	8.83	7.88	7.87	7.89	8.60
12	Winter	Dec	9.26	9.27	8.23	8.23	8.24	9.09
13		Jan	9.72	9.72	8.80	8.79	8.79	9.76
14		Feb	9.82	9.82	8.81	8.82	8.83	9.69
15		Mar	9.31	9.29	8.45	8.42	8.41	9.07
16	Post	Apr	8.45	8.44	7.80	7.80	7.81	9.62
17	Spring	May	8.79	8.71	8.01	7.95	7.92	9.86
18	Summer	Jun	9.48	9.36	8.47	0.00	0.00	0.00

Peak Clipping | Loadshapes | Greenhouse | Hourly Electric Prices

Ready

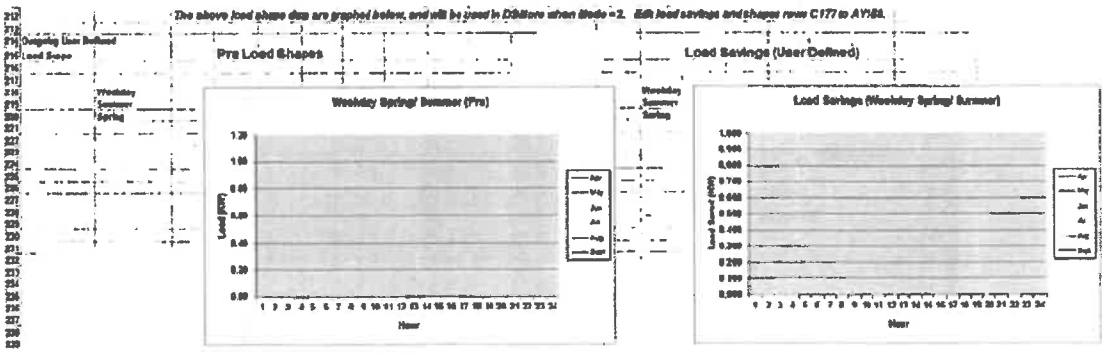
The hourly saved kWh are entered starting in row 177 of the Loadshapes tab to reflect the measure characteristics and the amount of savings to be subtracted from the pre-load shape hourly values.

Mean Savings	Apr	0.000	0.000	0.000	0.000	0.000	0.000
Spring	May	0.000	0 000	0.000	0.000	0.000	0.000
Summer	Jun	0 000	0.000	0.000	0.000	0.000	0.000
	Jul	0.000	0 000	0 000	0 000	0.000	0.000
	Aug	0.000	0.000	0.000	0.000	0.000	0.000
	Sept	0.000	0.000	0.000	0.000	0.000	0.000
Mean Savings	Oct	0.000	0.000	0.000	0.000	0.000	0.000
Fall	Nov	0 000	0.000	0.000	0.000	0.000	0 000
Winter	Dec	0.000	0.000	0.000	0.000	0.000	0.000
	Jan	0.000	0.000	0 000	0.000	0.000	0.000
	Feb	0.000	0.000	0.000	0.000	0.000	0.000
	Mar	0.000	0 000	0.000	0.000	0.000	0 000
		1	2	3	4	5	6

The Electric Power Research Institute (EPRI) publishes a publicly available library of end-use load shapes by building type. DSMore provides the user a method for importing these EPRI load shapes and adjusting the values to create a savings load shape. These savings load shapes, based on the EPRI end-use load shapes, can be copied into the Mode 2 custom savings cells (Loadshapes!A177:AY188). Section 7 provides details on the use of the EPRI end-use load shapes.

Load Shape Graphs

Below the load shape tables (starting in row 212 of the Loadshapes tab) are graphs of the load shapes (pre-, post-, and savings) by average weekday and average weekend by month. The screenshot below provides a subset of these graphs.



All values in these load shape tables are for weather normal conditions. Within DSMore, there are actually thousands of hourly load shapes and savings shapes, each linked directly to a given day's actual hourly weather pattern. DSMore cannot report all of these shapes within the confines of Excel, so instead, the weather normal, 50th percentile values are provided here, along with the hourly standard deviations (see below).

Coincident Savings

The coincident peak kW saving may be different than the average weekday hourly kW savings. The Summer Coincident kW Savings is entered in Loadshapes!C191 and the Winter Coincident kW Savings is entered in Loadshapes!C192 (see the figure below). If a value of "9999" is entered DSMore will automatically calculate the coincident kW savings.

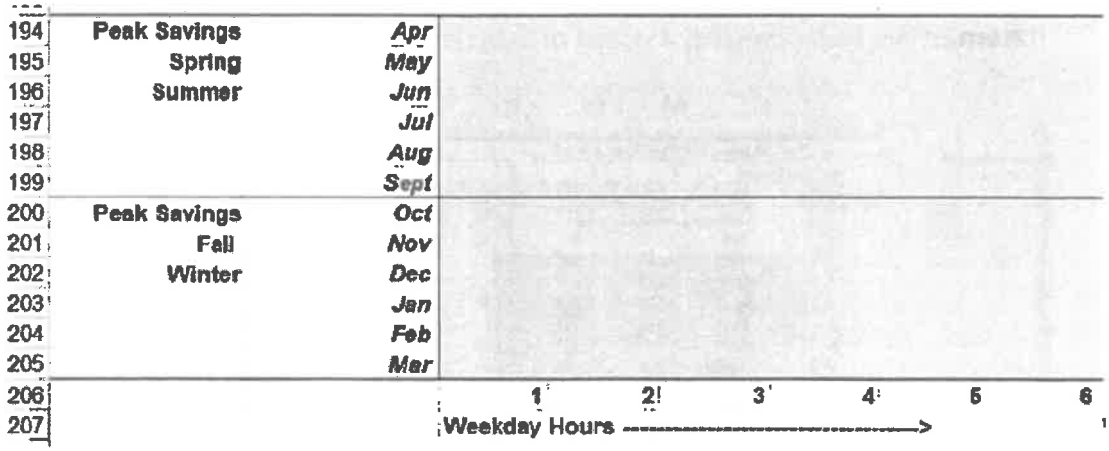
191	Summer Coincident Savings	0.000
192	Winter Coincident Savings	0.000

The month and hour of the Summer and Winter system peaks are entered in Utility Input!G14:H15.

1 (Summer)	2 (Winter)	
0	0	Coincident Month (1-12, 0)
0	0	Coincident Hour (1-24, 0)

Peak Savings

Starting in cell A194 of the Loadshapes tab, DSMore reports the average peak kW savings by month and by hour.



These values are calculated by taking the maximum value for each hour by month and day type and averaging them across the weather years. It can be thought of as the average of the kW coincident savings.

Gas Savings

Mode 2 gas savings is used when the measure includes gas savings, e.g., residential weatherization measures. The gas savings table is located in the Loadshapes tab, in the table starting at cell E191.

Monthly Gas Savings	Method	Annual CCF	January	February	March	April	May	June	July	August	September	October	November	December
	Annual CCF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cell G192 indicates the gas savings method: Annual hundred cubic feet (CCF), Monthly CCF, Monthly %. The following table summarizes the data that should be entered for each of the methods.

Gas Savings Method	Annual CCF (H192)	Month Data (I192:T192)
Annual CCF	Annual CCF Savings	Percent of month savings occurs (spread across the months using values of 0-1 in each of the months)
Monthly CCF	n/a	Monthly CCF savings
Monthly %	n/a	% of baseline load shape saved each month

Electrical Load Shape Variances and Standard Deviations

To the right of the pre-load shapes, in the upper section of the Loadshapes worksheet, the hourly load standard deviations are reported (see figure below). These values indicate how much each hour's load varies due to the weather. Note that roughly 95% of the load observations will lie within plus or minus 2 standard deviations of the weather normal mean.

	BF	BG	BH	BI	BJ	BK	BL	BM
1								
2	Pre Shape Standard Deviations							
3		1	2	3	4	5	6	7
4	Apr	1.022	0.987	0.914	0.921	0.916	0.985	1.122
5	May	1.320	1.317	1.053	1.086	1.070	1.771	1.738
6	Jun	1.413	1.385	1.176	1.163	1.149	1.525	1.514
7	Jul	1.321	1.326	1.068	1.075	1.079	1.689	1.662
8	Aug	1.270	1.279	1.113	1.114	1.115	1.842	1.709
9	Sept	1.306	1.279	1.239	1.194	1.170	1.709	1.632
10	Oct	1.105	1.111	0.927	0.926	0.930	1.609	1.521
11	Nov	1.119	1.121	0.858	0.894	0.892	0.976	1.003
12	Dec	1.264	1.285	1.083	1.107	1.116	1.525	1.446
13	Jan	1.170	1.195	0.941	0.976	0.998	1.451	1.412
14	Feb	1.170	1.212	0.912	0.914	0.916	0.967	0.895
15	Mar	0.995	0.942	0.851	0.901	0.881	0.903	0.840
16								
17		Weekday ——>				Weekday ——>		
18								
19								

Loads & Bills | Financial Reports | Peak Shaving | Loadshapes

Load Shape Standard Deviation

> ***Tip:***
> *The DSMore variance table depicts weather related variability. For interior lighting programs or other non-weather sensitive DSM programs, variance should be set to zero.*

The weather variance can be can restricted (or expanded) as is appropriate for the savings load shape by changing the Variance Adjustment Matrix that appears to the right of the editing region of the worksheet and several rows below the Standard Deviations (Cells BF175:DC189). See the figure below. To retain all the original variability in the load savings, enter 100% in all cells. To restrict all variability in savings (as with lighting) enter 0% in all cells. With 0%, there will be no change in the savings amounts due to weather.

	BF	BG	BH	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
175	Variance Adjustment Matrix											
176		1	2	3	4	5	6	7	8	9	10	11	12
177	Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
178	May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
179	Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
180	Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
181	Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
182	Sept	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
183	Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
184	Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
185	Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
186	Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
187	Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
188	Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
189		Weekday ---->			Weekday ---->				Weekday ---->				
190													

Peak Lighting | Loadshapes | Greenhouse | Hourly Electric Prices

Load Shape Variance Adjustment Matrix – Lighting Example

Restricting the weather variability will lower the overall test results since this restricts the natural covariance value that DSM tracks. Remember that higher load savings, which occur during more extreme weather, occur at higher avoided cost times, and hence lead to more covariance of savings between prices and loads, and higher overall program value.

The Variance Adjustment Matrix is used only in Mode 2 to restrict the natural variance in load savings. Modes 1 and 3 implicitly assume that the Variance Adjustment Matrix will use 100% of the variance, so typically weather sensitive measures should be modeled using Mode 1 or Mode 3.

For a full description on editing load shapes, refer to Technical Appendix A.

Mode 2 – DOE2 Savings Load Shapes

Mode 2 can also be used to import the savings load shapes calculated from the DOE2 building simulation program. To use the savings load shapes generated by DOE2, the user enables the DOE2 load shape function by changing Loadshapes C209 to a value of 1 (see the figure below). Note: when the DOE2 mode is enabled, the savings load shapes in rows 177:188 are no longer used and are greyed out. The DOE2 savings load shapes will be used instead of these rows.

	A	B	C
209	Use DOE2 Savings File? (1=yes)		0
210	Full Path to DOE2 File		
211			

DOE2 Savings File

The user also needs to specify where the DOE2 savings file is located in Loadshapes C210. The path can be the full path or a relative path, which is useful for those users working on a corporate network.

An example of the DOE2 file path:

C:\Users\John Smith\Documents\Integral Analytics\DSMore\ DOE2 Test Files\run4.s1

The remaining sections of the Loadshapes worksheet are output reports and are detailed in Section 9.5

Mode 2 – 8760 Savings Input

Sometimes hourly savings are provided in an hourly "8760" format. To streamline the process of converting those savings to the appropriate Mode 2 format, DSMore now provides 8760 savings inputs in cell G309:G9071. The user can turn on the feature in cell G309, specify the calendar year of the savings in cell G310, and copy the 8760 savings into the remaining cells. DSMore will then convert the 8760 savings into the Mode 2 format, copy them into the standard Mode 2 input cells, and run the workbook like a normal Mode 2 run.

Mode 3 – Targeted Savings

In this mode, DSMore provides the capability to evaluate annual or monthly savings that are provided, but the user does not know how the impacts are spread across the hours of the day. The user can enter an annual savings value, and then enter scaling factors in the monthly input cells to spread the annual savings across the months. Or, using the code '8888' in the annual target input, the user can enter monthly savings directly in the monthly input cells.

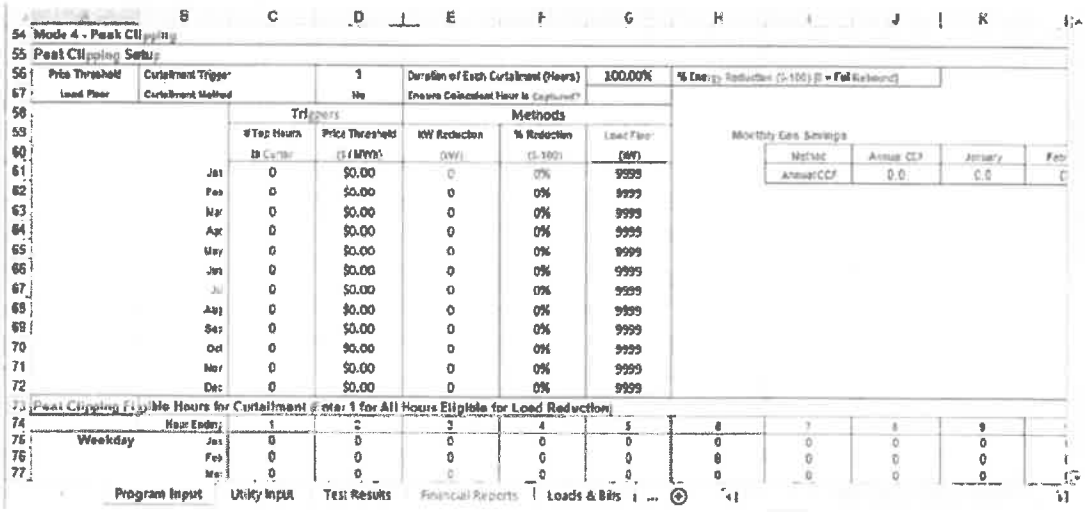
For example, perhaps a load savings of 10%, or 1,000 kWh saved per year (e.g., more efficient heat pump) from a formalized Impact Evaluation Report or other general information is provided. To model this level of savings, enter the expected electric savings (1,000 kWh) in cell B21, the expected non-coincident electric demand savings (kW) in B22, the expected gas savings (CCF) in B23, the expected summer coincident demand savings (kW) in cell B24, and the expected winter coincident demand savings (kW) in cell B25. Next, indicate which months get the savings by using Cells E21:P23. A "1" indicates that the savings will be distributed across that month. While the electricity (kWh) and gas (CCF)

savings will be distributed according to the actual loads (due to weather) across the indicated months, the non-coincident demand savings will be applied in full for the indicated months. The winter and summer coincident demand savings will only occur at the time of system peak. To have DSMore estimate the winter or summer coincident demand savings, enter "9999" in these cells. Because DSMore houses thousands of hourly load shapes, it can estimate appropriate peak and demand values, by using this "9999" function.

DSMore will reproduce the expected savings while retaining the expected weather variability. For weather sensitive measures, this mode is quite accurate, very quick, and simple. The exact load savings that are calculated are returned in the Loads and Bills output worksheet. The load savings information is summarized at the monthly level in the Loads and Bills worksheet and provided at the hourly level in the Loadshapes worksheet. For Mode 3, the upper section of the Loadshapes worksheet is not used. Note that more exact values, other than 1s or 0s in the monthly indicator rows, can be used to fine tune or adjust the desired load savings.

Mode 4 – Peak Clipping

The Peak Clipping mode is used for interruptible rate analysis, demand response or alternatively labeled peak clipping programs. On the Program Inputs worksheet, Mode 4 Peak Clipping information is entered on Rows 53-97.The figure below shows the Mode 4 key inputs.



DSMore runs noticeably slower for peak clipping programs due to the multiple passes of hourly level analyses that are conducted each time a peak clipping analysis is run. But the advantage is that DSMore essentially becomes the system operator or dispatcher. Because DSMore houses hourly loads and prices over many weather years and many forward curves, the Mode 4 option allows users to play many "what if" scenarios with demand response, changing the manner in which a system operator or dispatcher might operate a demand

response program. This functionality is also becoming increasingly important for Smart Grid valuations which depend on a select few high-priced time periods.

Mode 4 inputs include a curtailment trigger (price threshold or top hours), a curtailment method (kW impact, % load reduction, or load floor), and weekday and weekend hours eligible for curtailment. The user must choose one of the event triggers and one of the curtailment methods. The values of the curtailment triggers and curtailment methods are entered by month in 'Program Input'!C61:G72.

Curtailment Trigger ('Program Input'!A56)

The peak clipping strategy can either be triggered by using a Price Threshold ($/MWh) or across a set of the top hours. The price threshold is set using the Price Threshold ($/MWh) fields ('Program Input'!D61:D72). A load curtailment will occur for any day that contains a price that exceeds the threshold, as long as that month and hour are allowed in the peak clipping schedule (C75:Z98). Only one curtailment can occur each day, and it will last for the duration specified by the user (D56). The starting hour is set by choosing the hour that maximizes the average price over the duration of the curtailment.

Using the Top Hours trigger, the curtailment method is implemented for the specified number of top priced hours. This is the most popular type of peak clipping mode. Using the number of top hours entered by the user for each month (Program Input'!C61:C72), DSMore will perform load curtailments until the total interrupted hours meets the top hours amount. Like the price threshold trigger, only one curtailment can occur each day, and it will last for the duration specified by the user (D55). The starting hour is set by choosing the hour that maximizes the average price over the duration of the curtailment.

The user should note the difference between these two trigger strategies. The Price Threshold strategy allows interruptions any time the market price is above the specified Price Threshold. The number of interrupted hours depends on the Price Threshold. The Top Hours implementation strategy allows interruption only for the specified number of top hours with the highest prices, i.e., the highest price hours will be selected and used. This flexibility allows the user to see or experiment with interruptible schedules to create more value or take advantage of different market conditions.

Also note that since each curtailment will last for the user-specified duration, there can be lower-priced hours included in the Top Hours interruptions. Thus, if the user enters 100 hours to curtail, then those 100 hours may not include the top-100-priced hours.

Curtailment Methods ('Program Input'!A57)

There are three curtailment methods: kW Reduction, % Reduction, and Load Floor.

The kW Reduction method allows an absolute amount of kW load from the pre-load shape to be applied to all interrupted hours. This mode is the least weather sensitive, since the same reductions are applied on peak, irrespective of weather. But this is also the most conservative result, and often the most appropriate, where utility measurement and verification (M&V) results report a fixed peak reduction load from among, say, the top 10 extreme weather days. The monthly kW Reductions are entered in 'Program Input'!E61:E72.

The % Reduction method is used to reduce a percentage of the load from the pre-load shape for all interrupted hours. The monthly % Reductions are entered in 'Program Input'!F61:F72.

The Load Floor method is used to reduce loads down to some pre-specified floor. This will reduce the pre-load shape level down to this floor for all interrupted hours. Some interruptible rate options offer load floors below which a customer must operate to qualify for a specific credit or incentive. The monthly Load Floors are entered in 'Program Input'!G61:G72.

Duration of Each Curtailment ('Program Input'!D55)

The duration of each interruption is entered in this cell and it is assumed that at most one interruption will occur per day. If there are two or more interruptions per day, Mode 6 (Snapback), should be used. In Mode 4, DSMore will search each interrupted day for the best hour to start the interruption, maximizing the avoided costs, by observing the hourly avoided costs each day, as a system operator would, and then timing the interruption to capture the most financial value.

Ensure Coincident Hour Is Captured? ('Program Input'!D57)

To ensure that the coincident hour (specified on Utility Input worksheet) is captured in the interruption, enter a "1" in cell D57. Forcing the coincident hour into the interruption will ensure the avoided capacity costs are realized but may reduce the avoided energy costs if the coincident hour is not during times of the highest prices. Make sure that the coincident month(s) and hour(s) are defined on the Utility Input worksheet, cells G1:H15.

% Energy Reduction ('Program Input'!G55)

It is common for program designers to assume that there are minimal or no kWh savings or conservation effects for peak clipping type programs due to "snap-back" or other load-shifting affects. The program designer must choose how much kWh energy effects are in the program test results.

If the program designer chooses to not include energy effects (kWh), the Loads and Bills worksheet output will reflect zero kWh savings, and the Financial Reports worksheet will show zero avoided energy benefits.

Peak Clipping Eligible Hours for Curtailment ('Program Input'!C75:Z98)

The allowable hours to be interrupted are entered within the Peak Clipping Load Schedule section, which is partly shown in the figure below. In the example below, the interruptions, indicated by the "1's", are occurring between 12 AM and 4 AM in June, July, and August on weekdays only. These 1s only frame the Peak Clip window, within which the system operator is allowed to consider interruptions. It does not mean that interruptions will necessarily occur in that hour. The hourly prices, combined with the curtailment trigger and curtailment method, will determine what actually is interrupted, and in which hours. The Peak Clipping worksheet reports the interruptions that were used for the analysis and the number of hours per month in which interruptions occurred. If the "Ensure Coincident Hour is Captured" toggle is enabled, then the user should include the coincident hour(s) into the schedule.

	A	B	C	D	E	F	G	H	I
73	Peak Clipping Eligible Hours for Curtailment (Enter 1 for All Hours Eligible for Load Reduction)								
74		Hour Ending	1	2	3	4	5	6	7
75	Weekday	Jan	0	0	0	0	0	0	0
76		Feb	0	0	0	0	0	0	0
77		Mar	0	0	0	0	0	0	0
78		Apr	0	0	0	0	0	0	0
79		May	0	0	0	0	0	0	0
80		Jun	0	0	0	0	0	0	0
81		Jul	0	0	0	0	0	0	0
82		Aug	0	0	0	0	0	0	0
83		Sep	0	0	0	0	0	0	0
84		Oct	0	0	0	0	0	0	0
85		Nov	0	0	0	0	0	0	0
86		Dec	0	0	0	0	0	0	0
87	Weekend	Jan	0	0	0	0	0	0	0
88		Feb	0	0	0	0	0	0	0
89		Mar	0	0	0	0	0	0	0
90		Apr	0	0	0	0	0	0	0
91		May	0	0	0	0	0	0	0
92			0	0	0	0	0	0	0
93			0	0	0	0	0	0	0

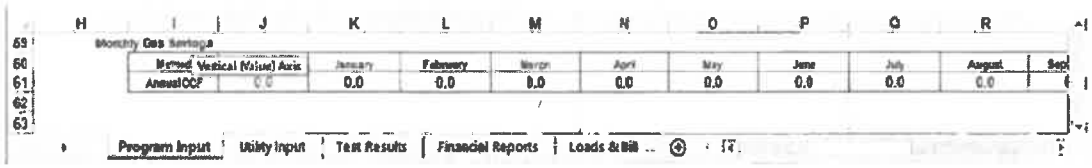
Program Input | Utility Input | Test Results | Financial R ...

Peak Clipping Schedule

> ***Important Tip:***
> *For Peak Clipping programs, Today's Avoided Electric Cost Scenario in the Utility Input sheet should be selected based on choosing the top 100 price scenario most reflective of the market in which the program will operate.*

Gas Savings ('Program Input'!I61:V61)

Mode 4 gas savings is used when the measures impact both electric and gas usage. A Mode 4 measure that might save both electric and gas is a thermostat control program that operates year-round. The Mode 4 gas savings in hundred cubic feet (CCF) are entered in cells I61:V61 (see the figure below). Cell I61 indicates the gas savings method: Annual CCF, Monthly CCF, Monthly %.



Mode 4 Gas Savings (CCF)

If the annual CCF savings or increase usage is known, then that value is entered in cell J61. The savings is spread across the months using values of 0-1 in each of the months. If the monthly savings is known, set gas savings method to "Monthly CCF" and enter the monthly values in cells K61:V61. If the annual or monthly savings is not known, then set the gas savings method to "Monthly CCF" and enter the monthly savings as a percent of the baseline in cells K61:V61. Any of these gas savings methods can be selected in Mode 4.

The following table details the data that should be entered for each of the gas savings methods.

Gas Savings Method	Annual CCF (I61)	Month Data (K61:V61)
Annual CCF	Annual CCF Savings	Percent of month savings occurs
Monthly CCF	n/a	Monthly CCF savings
Monthly %	n/a	% of baseline load shape saved each month

5.1.1.2 Measure Life

Cell A5 is the measure life. DSMore performs all the calculations on an annual basis, so the measure life must be entered as a whole number. Partial years (e.g., 1.5 or 0.8) will be rounded down or may cause a program error message.

5.1.1.3 Initial Calendar Year

The initial year in Cell A6 is the first year of the program. This year will be used throughout tables in DSMore to provide the timing of the inputs.

5.1.1.4 Create Year-By-Year Workbooks

Cell A7 contains a switch to show the year-by-year DSMore results. Traditionally DSMore shows the benefit-cost analysis of the measure across all years that have participation. Some utilities and regulators want to examine the benefit-cost ratio for each year of the program and not just the cumulative value. Setting Cell A7 to "Yes" will produce separate DSMore runs for each year that has program participation. The year of each DSMore run will be written to Cell D7. "All Years" will be written into Cell D7 for the all-years run.

5.1.2 User-Defined Aggregation Categories

Cells G1-K1 are user inputs for user-defined aggregation categories. These categories are used to aggregate the results of multiple DSMore runs. Example categories include measure technology (e.g., Lighting, heating, ventilation, and air conditioning (HVAC)), programs (Efficient Products, Commercial light-emitting diodes (LEDs)), or sectors (e.g., Residential, Commercial, Income Qualified). These categories are used by the Aggregation Tool to summarize the results at the category levels.

5.1.3 Quick Reference Tests

Quick Reference Tests			
	Cost-Based	Today	Option
PAC/UCT	0.00	0.00	0.00
TRC	0.00	0.00	0.00
RIM	0.00	0.00	0.00
RIM (Net Fuel)	0.00	0.00	0.00
Societal Test	0.00	0.00	0.00
Participant Test	0.00	0.00	0.00

The "Quick Reference Tests" in cells G3:J10 provide a summary of the benefit-cost ratios by test and by avoided costs: cost-based avoided costs, market-based avoided costs (Today's scenario) and market-based avoided costs (Option Value).

5.1.4 Notes, Last Run, and Runtime Version

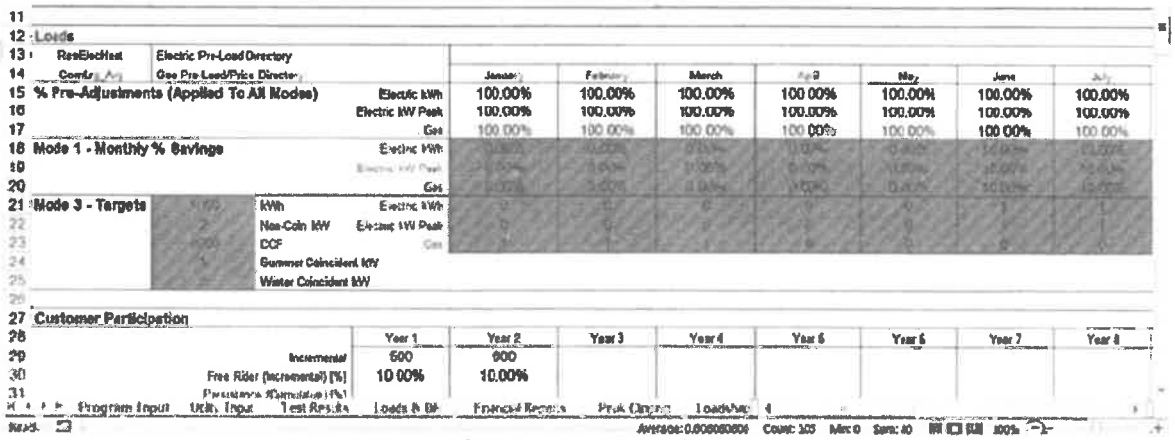
Notes	
Last Run: 04/11/2022 09:52:09 AM	**Runtime Version:** 14.0.3

Notes can be entered in Cell L4 to capture any assumptions or other information associated with the DSMore run.

Cell M10 is updated after every time the file is run with the date and time stamp. This cell is useful in tracking if the DSMore file has been updated using the "Evaluate" button. It is helpful to refer to this cell in the Output worksheet of Batch tools to track when measures have been updated.

5.2 Pre-Adjustment Factors (Program Input!A15:P17)

The Pre-Adjustment factors adjust the customer class load shape to match the expected monthly consumption, unique to the customer subgroup. This allows the user to exactly match kWh usages to known customer averages or to corporate forecasts. The pre-adjustment factors can be used to increase or decrease the load shape from the DSMore library. The net effect of the modes and the pre-adjustment factors is the ability to model any pre- and post-DSM program load shape without resorting to large libraries of load shapes. The layout of these factors and modes appears in DSMore as shown in the figure below.



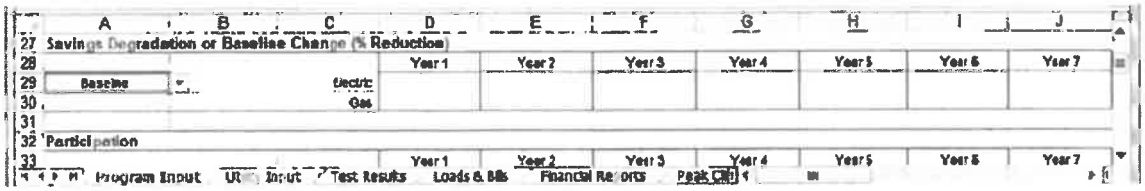
% Pre-Adjustments Input Section

The user enters the pre-adjustment load shape factors for Electric kWh, Electric kW Peak and Gas in cells E15:P17. The adjusted pre-load shape can be reviewed on the Loadshapes worksheet. The numeric pre-load shapes start in Row 4 of the Loadshapes worksheet. The graphical pre-load shapes start in Row 45 of the Loadshapes worksheet.

5.3 Savings Degradation/Base Change (Program Input!A27:AB30)

This section allows the user to define how measure savings will change over the measure life. The change can either be a function of the measure life – saving degradation over time; or the change can be a result of baseline changes – an adjustment at a specific program

year. The user chooses the type of savings adjustment, degradation, or baseline using the dropdown box in cell A29. The degradation values or baseline changes for electric and gas are entered in cells D29:AB30. The yearly degradation or baseline change is not cumulative and refers back to the savings in year 1. For measures and programs with saving beyond year 25 there is a Year 25+ escalator after Year 25.



Savings Degradation and Baseline Change Inputs

The degradation effects are not cumulative, so if the measure savings are degraded to 5% in Year 2, the user will need to continue this level of degradation each year for the remaining life of the measure. The degradation adjustments are applied to measure life years. If a measure has a 5% degradation in Year 2 of its measure life and the measure was installed in Year 4 of the program, then the savings degradation will appear in Year 5 of the program. The figure below shows an example of degradation factors.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Degradation			5.00%	5.00%	5.00%	10.00%	10.00%
1,000 kWh Annual Savings							
Yr1 Measure	1,000	1,000	950	950	950	900	900
Yr2 Measure		1,000	1,000	950	950	950	900
Yr3 Measure			1,000	1,000	950	950	950
Yr4 Measure				1,000	1,000	950	950
Cumulative	1,000	2,000	2,950	3,900	3,850	3,750	3,700

Degradation Example

The baseline change is applied at a specific program year to all installed measures and all subsequent measures. A 5% baseline change in Year 3 reduces the overall savings in Year 2 and the savings reduction needs to be continued in all subsequent years. The figure below shows an example of degradation factors.

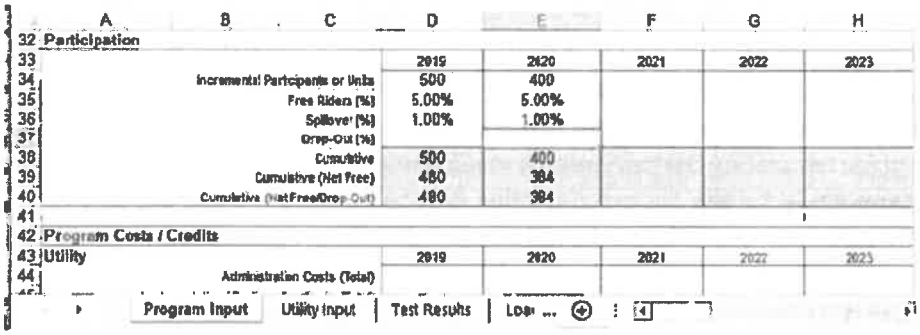
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Baseline			5.00%	5.00%	5.00%	10.00%	10.00%
1,000 kWh Annual Savings							
Yr1 Measure	1,000	1,000	950	950	950	900	900
Yr2 Measure		1,000	950	950	950	900	900
Yr3 Measure			950	950	950	900	900
Yr4 Measure				950	950	900	900
Cumulative	1,000	2,000	2,850	3,800	3,800	3,600	3,600

Baseline Example

5.4 Customer Participation (Program Input!A32:AB40)

The yearly and cumulative participation and free rider schedules appear in the Program Input worksheet in Row 32. See the figure below for a partial view of the Customer Participation inputs section. This input section takes up to 25 years of participation data. The user enters values in the light green cells, and the cumulative values in the orange cells are calculated automatically.

Free ridership values are entered as a percentage of customers for each year. Free driver effects can be reflected as negative free rider percentages. Previously, spillover was subtracted from free riders and the total value was entered in the free rider row. In DSMore 2020 there is a separate row for the spillover values. Persistence is entered as % Drop Out, or 1- Persistence Rate, for each year. This allows DSMore to track the cumulative total program drop outs. The % Drop Outs may continue beyond the program years.



	A	B	C	D	E	F	G	H
32	Participation							
33				2019	2020	2021	2022	2023
34			Incremental Participants or Units	500	400			
35			Free Riders (%)	5.00%	5.00%			
36			Spillover (%)	1.00%	1.00%			
37			Drop-Out (%)					
38			Cumulative	500	400			
39			Cumulative (Net Free)	480	384			
40			Cumulative (Net Free/Drop Out)	480	384			
41								
42	Program Costs / Credits							
43	Utility			2019	2020	2021	2022	2023
44			Administration Costs (Total)					

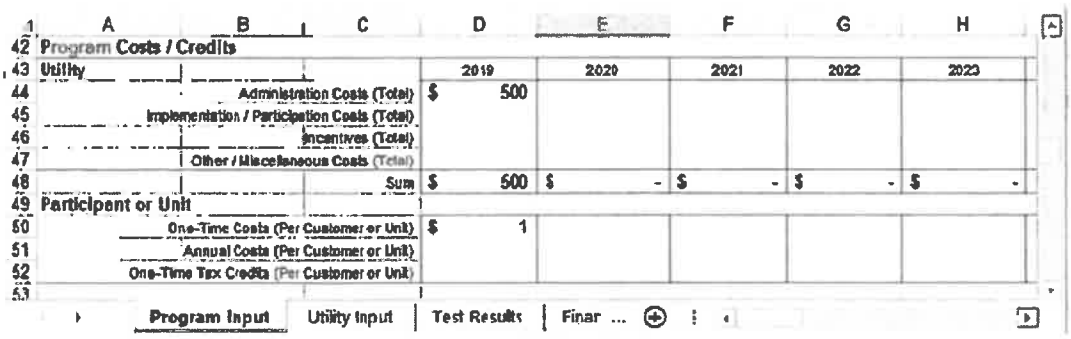
Program Input | Utility Input | Test Results | Loa ...

Customer Participation Inputs

> ***Tip:*** *The % Free Rider/Driver field can be used to model other % increasing or decreasing program impacts including the effects of early adoption, churn, participation dropout, or other impacts. The combined effect of these influences would then be input to this row.*

5.5 Program Costs/Credits (Program Input!A42:AB52)

The program cost input section can be found starting in Row 42 of the Program Inputs worksheet (see the figure below). Like the Program Participation section, the Program Cost section has program inputs for up to 25 years.



Program Costs/Credits Inputs

The program costs entered in this section must have any inflation or other program cost escalations included in the annual costs. Do **not** discount (or net present value) the program costs. The discount rates in the Discount Rate Matrix on the Utility Input worksheet will be used for calculating the net present value (NPV) of the program costs. Although not recommended, if the net present value program costs are used, the NPV cost should be entered in Year 1 and zeros should be recorded for program costs in all other years.

5.5.1 Utility

Four rows of annual utility costs are provided to include the following cost categories:

- Administration – fixed program overhead costs,
- Implementation/Participation – incremental cost based on number of participants,
- Incentives – incentives paid to program participants, and
- Other/Miscellaneous – used for any costs not covered in the previous categories.

It is important to follow these categories, so that the costs can be used correctly in the five cost-effectiveness tests. If necessary, a separate worksheet can be added to the DSMore file and the detailed program utility costs can be entered and summed together by category on this worksheet. The totals can then be linked to the program utility cost section on the Program Input worksheet.

5.5.2 Customer Costs

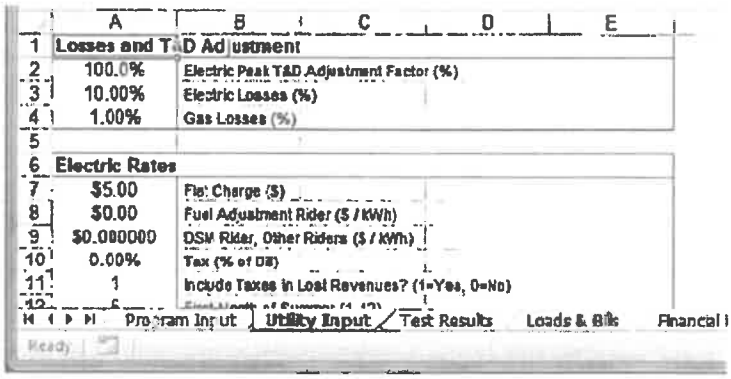
In the Customer section of the Program Costs all customer costs (e.g., incremental measure costs, incremental annual maintenance costs, and tax credits) should be entered. Customer costs are used in the TRC and Societal tests. If this section is left blank, the TRC and Societal tests will be understated. As with the Utility costs, a separate worksheet can be added to the DSMore file and the detailed program customer costs can be entered and summed together by category on this worksheet. The totals can then be linked to the program customer cost section on the Program Input worksheet.

6 Utility Input Worksheet

This section describes the DSMore Utility Input worksheet. The Utility Input worksheet is designed to hold information that applies to all programs and usually only needs to be set up once and adjusted periodically as utility information changes. The Utility Input worksheet also contains important information about avoided costs.

6.1 Losses and T&D Adjustment (Utility Input!A1:E4)

Losses and T&D savings adjustments are captured within the Utility Input worksheet in cells A1:E4 (see the figure below).



Losses and T&D Adjustment

The expected electric losses, entered as a percentage, are applied to each hour. DSMore calculates losses based on the delivered kWh (metered kWh), not the generated kWh. If the loss percentage is based on generated kWh, then please convert the percentage using this formula:

DSMore Loss % = Generation Loss % / (1 - Generation Loss %)

For example, if the generation loss is 5%, then the deliver losses are calculated as 5% / (1 – 5%) = 5.26% and 5.26% should be entered into DSMore.

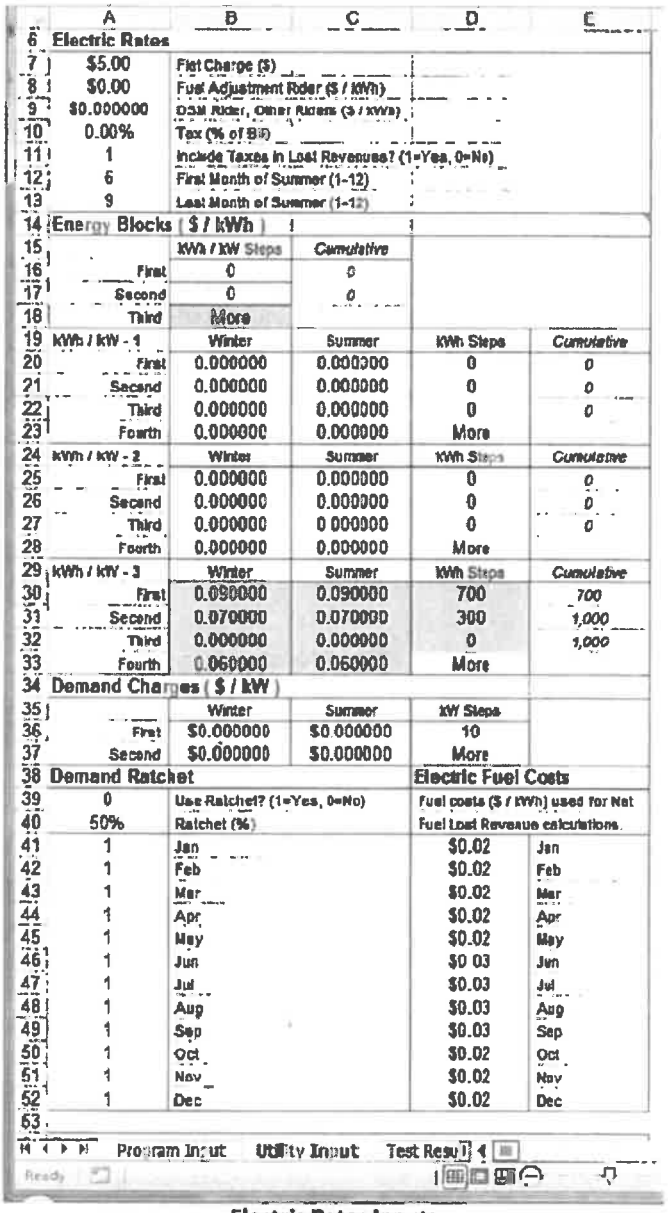
The expected gas losses, also entered as a percentage, are applied to each month. Gas losses are typically much lower than electric losses, and do not vary as much across varying load conditions.

Where program savings are specifically peak related (e.g., peak clipping programs, interruptible rates), the average Electric losses input will underestimate the losses benefit. For average losses of 10%, peak losses can be 20% or more in some circumstances and increase proportionally to the square of the load increase.

The Electric T&D Peak kW Savings Adjustment (cell A2) is used to adjust the T&D kW savings. Entering a 1.0 indicates that the normal kW savings values shown in the Loads and Bills worksheet will be used for avoided T&D savings calculations. To create a 15% increase in these load reductions (e.g., to reflect higher than average LMP values for a region or higher than average losses), the user would enter a 1.15 to appropriately reflect this increase in savings.

6.2 Electric Rates and Tariffs (Utility InputIA6:E52)

The Electric Rate Inputs include all the data necessary to model the applicable utility tariffs for the customer base. The inputs section is split into customer charges, energy blocks, demand charges, and demand ratchet. The figure below shows the Electric Rate Input section.



	A	B	C	D	E
6	**Electric Rates**				
7	$5.00	Flat Charge ($)			
8	$0.00	Fuel Adjustment Rider ($ / kWh)			
9	$0.000000	DSM Rider, Other Riders ($ / kWh)			
10	0.00%	Tax (% of Bill)			
11	1	Include Taxes in Lost Revenues? (1=Yes, 0=No)			
12	6	First Month of Summer (1-12)			
13	9	Last Month of Summer (1-12)			
14	**Energy Blocks ($ / kWh)**				
15		kWh / kW Steps	*Cumulative*		
16	First	0	*0*		
17	Second	0	*0*		
18	Third	More			
19	kWh / kW - 1	Winter	Summer	kWh Steps	*Cumulative*
20	First	0.000000	0.000000	0	*0*
21	Second	0.000000	0.000000	0	*0*
22	Third	0.000000	0.000000	0	*0*
23	Fourth	0.000000	0.000000	More	
24	kWh / kW - 2	Winter	Summer	kWh Steps	*Cumulative*
25	First	0.000000	0.000000	0	*0*
26	Second	0.000000	0.000000	0	*0*
27	Third	0.000000	0.000000	0	*0*
28	Fourth	0.000000	0.000000	More	
29	kWh / kW - 3	Winter	Summer	kWh Steps	*Cumulative*
30	First	0.090000	0.090000	700	*700*
31	Second	0.070000	0.070000	300	*1,000*
32	Third	0.000000	0.000000	0	*1,000*
33	Fourth	0.060000	0.060000	More	
34	**Demand Charges ($ / kW)**				
35		Winter	Summer	kW Steps	
36	First	$0.000000	$0.000000	10	
37	Second	$0.000000	$0.000000	More	
38	**Demand Ratchet**			**Electric Fuel Costs**	
39	0	Use Ratchet? (1=Yes, 0=No)		Fuel costs ($ / kWh) used for Net	
40	50%	Ratchet (%)		Fuel Lost Revenue calculations.	
41	1	Jan		$0.02	Jan
42	1	Feb		$0.02	Feb
43	1	Mar		$0.02	Mar
44	1	Apr		$0.02	Apr
45	1	May		$0.02	May
46	1	Jun		$0.03	Jun
47	1	Jul		$0.03	Jul
48	1	Aug		$0.03	Aug
49	1	Sep		$0.03	Sep
50	1	Oct		$0.02	Oct
51	1	Nov		$0.02	Nov
52	1	Dec		$0.02	Dec
53					

Program Input | Utility Input | Test Resu

Ready

Electric Rates Inputs

The customer charges include (cell reference):

- Flat Charge ($) (A7) – fixed monthly customer charge
- Fuel Adjustment Rider ($/kWh) (A8) – to adjust for annually changing fuel prices; applied to all energy blocks
- DSM Rider, Other Riders ($/kWh) (A9) – a fee to pay for DSM programs or other services; applied to all energy blocks
- Tax (% of Bill) (A10) – tax rate, which is applied to the whole bill

- Included Taxes in Lost Revenues (A11) – allows the user to keep the taxes out of lost revenues, since this revenue is a pass through to the government. Most states keep the tax costs in the Lost Revenue calculations.
- First Month of Summer (A12) – enter the numeric month (1-12) for the start of the utility summer rate structure
- Last Month of Summer (A13) – enter the numeric month (1-12) for the end of the utility summer rate structure

The $/kWh rate blocks are setup to support either kWh per kW structures or simple per kWh structures. The input section has two key areas the definition of the kWh/kW steps in cells A15:E18 and the energy blocks (kWh/kW – 1, kWh/kW – 2 and kWh/kW – 3) in cells A19:E33. The steps and the corresponding energy blocks are color-coded. For example, the second kWh/kW step, highlighted in light blue, corresponds to the second energy block (kWh/kW – 2), also highlighted in light blue.

6.2.1 Simple kWh Rate Structures

For simple kWh structures, the first and second kWh/kW steps are set to zero (cells B6 & B17) and the $/kWh rates are input into the third energy block (cells B30:E33). Most DSMore users will use this approach.

Important:
For simple $/kWh tariff structures, set the first and second kWh/kW steps to zero and input the rates in the third rate block.

Energy Blocks ($ / kWh)		
	kWh / kW Steps	Cumulative
First	0	0
Second	0	0
Additional	More	

6.2.2 kWh/kW Blocks or Hours Use Tariff

Some utilities charge their large customers based on the facility's load factor represented by the ratio of kWh/kW. The rate will be set up in kWh/kW steps and for each step there will be a different energy charge ($/kWh) associated. This a complex rate structure and may be best understood using an example.

A facility uses 75,000 kWh in January and the peak demand is 160 kW. The ratio of kWh/kW for this month is 468.75 hours (75,000 kWh/160 kW). Using the rate structure presented in the figure above, the first 125 hours of energy usage, 20,000 kWh (160 kW x 125 hours), will be charged at the Energy Block 1 rates. The next 275 hours of energy usage, 44,000 kWh (160 kW x 275 hours) will be charged at the Energy Block 2 rates. And the remaining 68.75 hours (468.75 – 125 – 275) of energy usage, 11,000 kWh (160 kW x 68.75 hours) will be charged at the Energy Block 3 rates. The energy usage will be allocated by the energy blocks in each of the Energy Block rates. See the figure below for the breakout of the energy charge calculation for this rate structure.

Energy	75,000.00 kWh			
Demand	160 kWh			
kWh/kW	468.75 hours			
Hour Steps				
	kWh / kW Steps	Hours	Demand	kWh
First	126	126.0	160	20,000
Second	275	275.0	160	44,000
Third	More	68.8	160	11,000
Totals		468.8		75,000
kWh / kW - 1				
	Winter	kWh Steps	kWh	Block 1 $
First	0.100000	3000	3,000	$300.00
Second	0.050000	7000	7,000	$350.00
Third	0.000000	0	-	$0.00
Fourth	0.040000	More	10,000	$400.00
Totals			20,000	1,050
kWh / kW - 2				
	Winter	kWh Steps	kWh	Block 2 $
First	0.055000	6000	6,000	$330.00
Second	0.052000	4000	4,000	$208.00
Third	0.000000	0	-	$0.00
Fourth	0.048000	More	34,000	$1,632.00
Totals			44,000	2,170
kWh / kW - 3				
	Winter	kWh Steps	kWh	Block 3 $
First	0.090000	700	700	$63.00
Second	0.070000	300	300	$21.00
Third	0.000000	0	-	$0.00
Fourth	0.060000	More	10,000	$600.00
Totals			11,000	$684.00
Total Energy Charges			75,000	$3,904.00

kWh/kW Rate Example

Demand charges (cells A34:E37) are treated similarly using a step function for the charges. If needed, transmission, ancillary, and other demand type charges can be aggregated together. DSMore additionally supports demand ratchets. These are input directly below the demand charges as shown in the Electric Rates Inputs figure above.

Cell A39 is used to turn the demand ratchet on (1) or off (0).
Cell A40 contains the percent demand ratchet included in the rate.
Cells A41:A52 turn the ratchet on (1) or off (0) by month.

If there are not enough rate blocks provided, manually calculate a weighted average rate for one or more of the blocks or ask Integral Analytics to develop a custom rate structure. When using a weighted average rate, be sure to verify the expected revenues and compare to the DSMore output in the Loads and Bills worksheet. Note that the first and/or second blocks rarely have any influence on lost revenues on the margin.

6.2.3 Time of Use (TOU) Rates

TOU rates are entered on the TOU worksheet in a similar fashion as mode 2 savings, i.e., hourly by day-type and by month. The TOU rates can be applied to pre-shape, the post-shape, or both. Using a standard rate for the pre-shape and TOU rate for the post-shape allows evaluating the TOU rate as a "measure". For example, using mode 2, savings can be entered in peak hours (and load added to off-peak hours) to represent changes in behavior from switching to a TOU rate.

If the toggle in TOU!A2 is set to "Yes", then the rate values on the TOU sheet will override the rates entered in cells Utility Input!A6:E52.

6.2.4 Electric Fuel Costs for Net Fuel by Month (D41:D52)

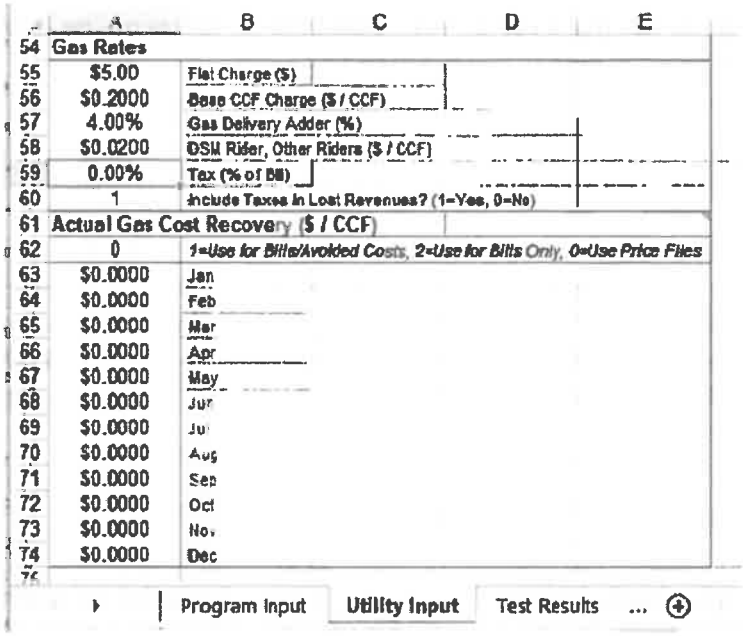
The monthly average fuel cost section is also shown in the Electric Rates Inputs figure above. This section allows the user to remove average fuel costs from the Lost Revenue report to calculate Lost Revenue Net Fuel. These two reports can be found on the Financial Reports worksheet in cells E64:G94 (Cumulative Lost Revenue) and cells H64:J94 (Cumulative Lost Revenue (Net Fuel)). The units are in $/kWh and represent the monthly average fuel cost.

6.3 Gas Rates (Utility Input!A54:E74)

The Gas Rates inputs include all the data necessary to model the applicable utility tariffs for the customer base. The inputs section is split into customer charges and actual gas cost recovery ($/CCF). The figure below presents the Gas Rates input section.

Cell A61 is used to toggle how the gas rates in cells A63:A74 get applied.

Cell A61	Gas Bills	Gas Avoided Costs
1	Calculated using values in A62:A73	Calculated with values in A62:A73
2	Calculated using values in A62:A73	Calculated using gas avoided cost scenario selected in 'Utility Input'!G7
3	Calculated using gas avoided cost scenario selected in 'Utility Input'!G7	Calculated using gas avoided cost scenario selected in 'Utility Input'!G7



	A	B	C	D	E
54	Gas Rates				
55	$5.00	Flat Charge ($)			
56	$0.2000	Base CCF Charge ($ / CCF)			
57	4.00%	Gas Delivery Adder (%)			
58	$0.0200	DSM Rider, Other Riders ($ / CCF)			
59	0.00%	Tax (% of Bill)			
60	1	Include Taxes in Lost Revenues? (1=Yes, 0=No)			
61	Actual Gas Cost Recovery ($ / CCF)				
62	0	1=Use for Bills/Avoided Costs, 2=Use for Bills Only, 0=Use Price Files			
63	$0.0000	Jan			
64	$0.0000	Feb			
65	$0.0000	Mar			
66	$0.0000	Apr			
67	$0.0000	May			
68	$0.0000	Jun			
69	$0.0000	Jul			
70	$0.0000	Aug			
71	$0.0000	Sep			
72	$0.0000	Oct			
73	$0.0000	Nov			
74	$0.0000	Dec			

Program Input | Utility Input | Test Results ...

Gas Rates

The customer charges include (cell reference):

- Flat Charge ($) (A55) – fixed monthly customer charge
- Base CCF Charge ($/CCF) (A56) – cost of fuel
- Gas Delivery Adder (%) - the transportation cost of piping natural gas from its source to the local distribution company
- DSM Rider, Other Riders ($/kWh) (A58) – a fee to pay for DSM programs or other services
- Tax (% of Bill) (A59) – tax rate, which is applied to the whole bill

If the user is evaluating a DSM gas savings measure against some known or historically observed set of natural gas prices, the Actual Gas Cost Recovery input cells should be used to enter the actual or observed gas rates for each month. Cell A61 is used for making the Gas Cost Recovery active (1) or using forecasts (2). Gas Cost Recovery charges reflect NYMEX Henry Hub fuel costs based either on Actual inputs, if Status=1, or NYMEX forecasted fuel costs, centered around Today's Avoided Gas Scenario, if Status=0. The Actual Gas Cost Recovery costs are entered in cells A62:A73. If more than one year's worth of gas savings is achieved, then weighted average market prices for each month will need to be created.

6.4 Avoided Costs/Prices (Utility Input!G1:L75)

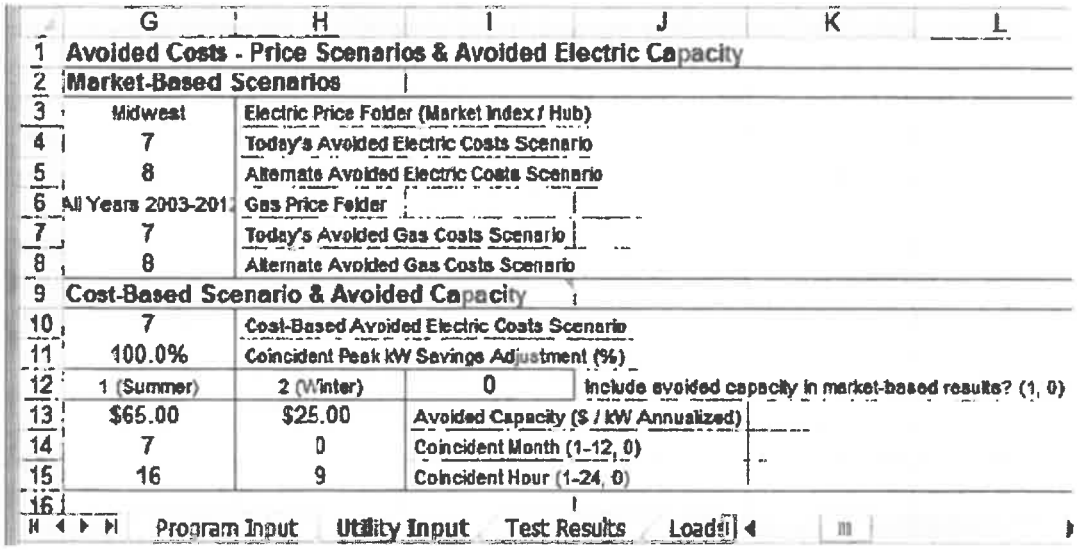
One of the more versatile functions of DSMore is its ability to assess multiple cost-effectiveness assessments over many different avoided cost scenarios at once. The most important and varying of these is the avoided electric production costs. Traditional analysis only analyzes one pricing scenario, usually marginal production costs or system lambda (cost-based). In DSMore, 21 different electric market scenarios (market-based) are assessed. Typically, DSMore uses 33 years of weather as a default number of scenarios, yielding 693 (= 33 x 21) cost-effectiveness tests to reflect a full spectrum of possible valuations of a particular program. The average value of these approximately 700 tests represents a weather normalized expectation across all possible market price scenarios. Selecting one market price scenario (Today's value) provides test results for the current market across all weather scenarios.

Using fewer than 30 years of weather jeopardizes the estimation of weather normal and extreme weather effects. Using less than 21 market price scenarios may result in too few market price scenarios near the chosen current market price and does not allow interpolations between 5th percentile levels. The 21 price scenarios are composed of nineteen 5th percentiles (i.e., 5th, 10th, 15th, etc.), a minimum, and a maximum. Test results can be linearly interpolated between two existing market price scenarios (each at approximately 5th percentile levels). Where market price scenarios are too far apart (as a result of having too few pricing scenarios), linear interpolation of results is riskier. The weather scenarios are set arbitrarily at 33 in many cases for ease of processing, but purposefully above 30, the point at which the central limit theorem and weather normal, average load estimates are insured.

If the forward prices in traded electric markets are rising, then the user should select a scenario toward the upper end of the distribution of possible prices. If the user feels that the electric market is overbuilt, and prices will be depressed for some time to come, then they may rely more on the lower end of the distribution. DSMore provides a view of all these possible futures in any single analysis. Further, it allows the user to specify an expected form for the distribution of future prices, so that a weighted average of all likely futures in electric prices can be reflected in a single weighted cost-effectiveness test (termed the Option Value in DSMore).

The user can adjust the distribution of expected prices. DSMore provides the means to calculate a Logistic Distribution (shown in the Utility Input worksheet). This distribution adequately reflects the skewed expectations of high prices that have been observed across markets historically, including California, Alberta, PJM, and others.

Under the Price Scenario section there are two sets of avoided cost inputs: 1) Market-Based Scenario and 2) Cost-Based Scenario. The figure below presents the Price Scenario input section.



	G	H	I	J	K	L
1	Avoided Costs - Price Scenarios & Avoided Electric Capacity					
2	Market-Based Scenarios					
3	Midwest	Electric Price Folder (Market Index / Hub)				
4	7	Today's Avoided Electric Costs Scenario				
5	8	Alternate Avoided Electric Costs Scenario				
6	All Years 2003-201	Gas Price Folder				
7	7	Today's Avoided Gas Costs Scenario				
8	8	Alternate Avoided Gas Costs Scenario				
9	Cost-Based Scenario & Avoided Capacity					
10	7	Cost-Based Avoided Electric Costs Scenario				
11	100.0%	Coincident Peak kW Savings Adjustment (%)				
12	1 (Summer)	2 (Winter)	0	Include avoided capacity in market-based results? (1, 0)		
13	$65.00	$25.00	Avoided Capacity ($ / kW Annualized)			
14	7	0	Coincident Month (1-12, 0)			
15	16	9	Coincident Hour (1-24, 0)			
16						

Program Input | Utility Input | Test Results | Load

Price Scenarios Inputs

The Market-Based Avoided Costs are customized for the user using historic market prices from the closest energy hub and actual weather data. 21 market-based price scenarios are developed. The Market-Based scenario is used to select the Today's value to determine where on the price scenario distribution curve to base the analysis (this is described in detail in Section 6.4.1.1).

The Cost-Based Scenario is typically used for the utility avoided cost forecasts, or system lambda prices. The system lambda prices are usually included by IA in scenario 1. The Cost-Based Scenario also adds an avoided capacity value not included in the market-based prices. The Cost-Based Scenario is used for the cost-based tests on the "Test Results" worksheet. The Cost-Based tests remove the electric adders from the avoided costs and add the avoided capacity numbers specified in this section.

6.4.1 Market-Based Scenario Inputs (Utility Input!G3:G8)

There are six inputs in the Market-Based Scenario: three for avoided electric costs and three for avoided gas costs. These inputs determine which Avoided Market Cost Distribution scenarios to use for the cost-effectiveness tests. The Avoided Market Cost Distributions scenarios are presented on the Utility Input worksheet in cells A99:F119. See discussion below for determining which scenarios to enter for these market-based inputs.

Electric Market Index / Hub (G3) – the market index can be manually entered here or can be entered from the "Select Loads/Prices" button on the DSMore menu.

Today's Avoided Electric Costs Scenario (G4) – based on expected forwarded electric prices

Alternative Avoided Electric Costs Scenario (G5) – used to bracket expected forward prices in case the price falls in between scenarios

Gas Market Index / Hub (G6) – the market index can be manually entered here or can be entered from the "Select Loads/Prices" button on the DSMore menu.

Today's Avoided Gas Costs Scenario (G7) – based on expected forwarded gas prices

Alternative Avoided Gas Costs Scenario (G8) – used to bracket expected forward prices in case the price falls in between scenarios

Include avoided capacity in market-based results (I12)
Normally avoided capacity values are **not** included in the market-based results. Entering a "1" will include avoided capacity values in the market-based results.

For example, if 4 was entered into Today's Avoided Electric Costs Scenario, the cost-effectiveness tests that appear under the Today column of test results would be driven by the prices shown in the 4th scenario in the Avoided Market Cost Distributions.

The Option Value Test result is the weighted average test value of almost 700 scenario runs (33 weather scenarios across 21 market price scenarios is 693, for example). Since the probability of very high prices (although very small) is higher than the probability of very low prices (e.g., system lambda productions costs as a minimum - scenario 1), the average value of these 693 tests tends to skew to the right, or toward the higher end. This "lift" in the test values reflects the optionality in the event of high market prices if there are DSM resources in place. If the user does not believe high prices will ever exist, they will not recognize or value this "lift" or optionality. See Section 6.4.1.3 for calculating the probability distribution of the scenarios for the Option value.

6.4.1.1 Selecting the Market Cost Scenario for Today's Value

DSMore reports a distribution of forward price outcomes based on the uncertainty measured by the weather-related covariance of price and load, Avoided Market Cost Distributions. The distribution is reported using 21 scenarios – each representing 5% intervals along the price distribution. For evaluating energy efficiency and DR programs, the expected forward Around the Clock (ATC) price is matched to one of the 21 scenarios and used to report the expected test result based on today's forward price – "Today's Value". The Avoided Market Cost Distributions scenarios are presented on the Utility Input worksheet in cells A92:F115 and an example is shown in the figure below. If the expected forward ATC price falls between scenarios, then the bracketing scenarios can be selected as the Today's Value and the Alternative Value.

	A	B	C	D	E	F
93	Avoided Market Costs & Scenario Probabilities					
94						
95						
96		DSMore Returned	DSMore Returned	DSMore Returned	Probability of Each Scenario Occurring	
97						
98	Scenario	$ / MWh	$ / kWh	$ / MCF	Electric	Gas
99	1	$18.51	$0.0185	$2.95	0.000	0.838
100	2	$23.92	$0.0239	$3.44	0.059	0.064
101	3	$25.84	$0.0258	$3.91	0.057	0.033
102	4	$27.75	$0.0278	$4.37	0.071	0.019
103	5	$29.67	$0.0297	$4.90	0.078	0.014
104	6	$31.58	$0.0316	$5.35	0.080	0.007
105	7	$33.51	$0.0335	$5.83	0.077	0.005
106	8	$35.45	$0.0355	$6.26	0.072	0.004
107	9	$37.39	$0.0374	$6.81	0.064	0.003
108	10	$39.31	$0.0393	$7.27	0.055	0.002
109	11	$41.23	$0.0412	$7.75	0.048	0.002
110	12	$43.15	$0.0432	$8.21	0.041	0.001
111	13	$45.11	$0.0451	$8.75	0.036	0.001
112	14	$47.03	$0.0470	$9.21	0.030	0.001
113	15	$48.95	$0.0490	$9.66	0.026	0.001
114	16	$50.87	$0.0509	$10.48	0.022	0.001
115	17	$52.88	$0.0529	$11.46	0.020	0.001
116	18	$58.79	$0.0588	$12.27	0.044	0.001
117	19	$64.74	$0.0647	$13.13	0.030	0.000
118	20	$70.77	$0.0708	$13.95	0.020	0.000
119	21	$72.29	$0.0723	$14.82	0.004	0.000

Program Input | Utility Input | Test Results | Loads

Avoided Market Cost Distribution Example

6.4.1.2 Expected Forward ATC Price – Example Calculation

Several sources are available for determining the expected forward ATC price. In this example, we use the Calendar 2007 Megawatt Daily Peak-price to form a NiHub forward peak price expectation and convert that to an ATC price.

Generally, the higher the expected forward electricity price, the higher the benefit from energy efficiency programs. The forward price recommended is based on the published Megawatt Daily calendar 07 peak-hour price. The Megawatt Daily peak NiHub price, **$64.60**, published on December 1, 2006, was used for this analysis.

The following procedure was used to convert the Megawatt Daily published **peak-hour** price to a comparable **around-the-clock** (ATC) price for use in DSMore.

$$ATC = \frac{(\text{Peak Price } x \text{ Peak Hours} + \text{Off-Peak Price } x \text{ Off-Peak Hours})}{(\text{Peak Hours} + \text{Off-Peak Hours})}$$

The next step is to calculate the off-peak price. The NiHub index reports historic prices for weekday peak, weekday off-peak, weekend peak, and weekend off-peak. The reported weekday peak index price is equivalent to the Megawatt Daily peak price. Using the NiHub data, a ratio of Peak Price to Off-Peak Price can be calculated and applied to the Megawatt Daily peak price to calculate the Off-Peak Price.

Over the 3760 hours (the historic peak hours during 2006), the average peak index price was **$53.09**. Off peak prices are calculated from the time weighted average off peak, weekend peak, and weekend off peak as shown below.

$$\frac{\$29.15 \text{ weekday off-peak } x \text{ } 1{,}880 \text{ hours} + \$25.60 \text{ weekend off-peak } x \text{ } 800 \text{ hours} + \$43.27 \text{ weekend peak } x \text{ } 1{,}600 \text{ hours}}{4{,}280 \text{ hours}} = \$33.77$$

The observed 2006 peak to off-peak price ratio is calculated: $ 33.77 / $ 53.09 = **64%**

Applying this ratio to the Megawatt Daily peak price: $ 64.60 x 64% = **$ 41.09**

The peak and off-peak prices are then used to calculate the ATC.

$$ATC = \frac{(P\$64.60 \ x \ 3{,}760 \text{ hours} + \$41.09 \ x \ 4{,}280 \text{ hours})}{(3{,}760 \text{ hours} + 4{,}280 \text{ hours})} = \$52.08$$

The expected forward price calculated from Megawatt Daily is aligned with the comparable scenario. In this example, the expected value falls between scenario's 16 and 17 (see the figure above). Either of these can be used or for added precision, both can be run, and the results extrapolated to find the scenario corresponding to $52.08.

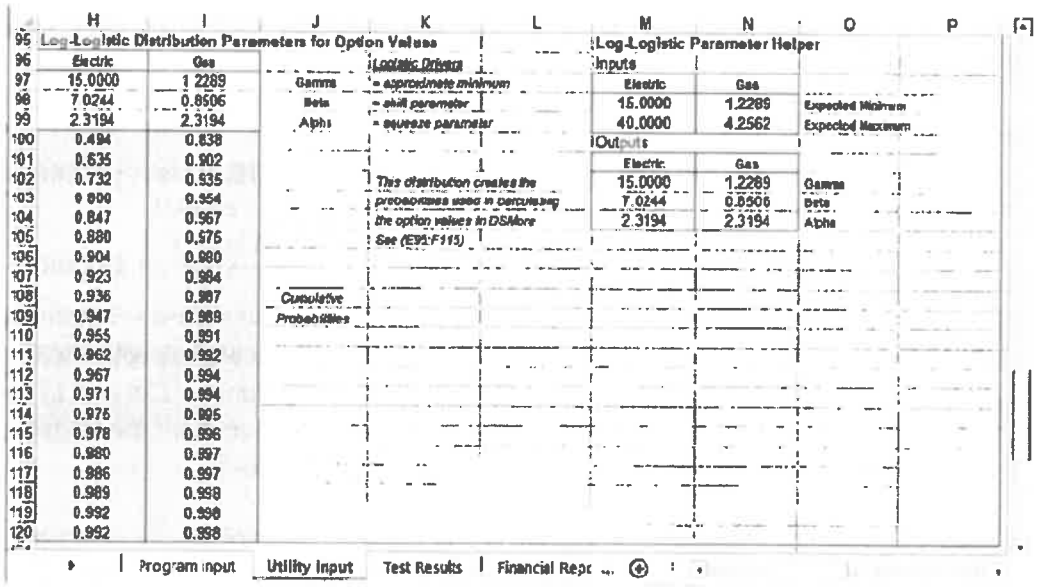
This is an example based on one version of the regional Simprice file. As prices are updated, the distribution measured by the Simprice file will change and the appropriate scenario to be used for Today's Value may be different. However, the procedure is the same – Align the expected price with the distribution file to determine the appropriate scenario to be used for Today's Value.

6.4.1.3 Setting the Option Value Probability Distributions

The probability distributions of the 21 market-based price scenarios for the option value calculation are determined using the Log-Logistic Distributions Parameters (Utility Input!H94:I120). The cumulative probability distributions are calculated based on the logistic curve and then the probability of each scenario is calculated and entered into the option value weightings in cells E100:E120 for electric and F100:F120 for gas. Typically,

electric scenario 1 is reserved for the cost-based prices and has a zero probability, so that it is not used in the Option value calculation.

The best way to learn about the distributions that are available using the Logistic Curve is to simply experiment with the expected minimum and expected maximum in the cells provided, to see how they affect the gamma, beta, alpha and market prices. The gamma parameter essentially places a floor on the prices from which they grow higher. The alpha parameter is a "squeeze" parameter that creates a distribution that is tightly centered around a particular market scenario (use this when there is price certainty). The beta parameter is a "shift" parameter that shifts the whole distribution to the right as beta increases. Because gas and electric markets are significantly correlated, higher electric price forecasts are expected to coincide somewhat with higher gas prices, and vice versa. However, this need not be the case, and different distribution of prices can be specified by using a different Input for Today's avoided electric vs. Today's avoided gas.



Log-Logistic Parameter

6.4.2 Cost-Based Scenario Inputs (Utility Input!G10:H15)

The cost-based scenario is used to determine cost-based avoided electric production, avoided capacity, and the coincident month and hour are also used to determine the avoided kW for T&D savings. This scenario is used for the cost-based tests on the "Test Results" worksheet. These tests remove the electric adders from the avoided costs and add the avoided capacity numbers specified in this section.

Cost-Based Avoided Electric Costs (G10)

If the utility system lambda prices have been entered by IA into DSMore scenario 1, scenario 1 should be selected; otherwise, select the market-based scenario that best matches the utility avoided cost forecast, or system lambda.

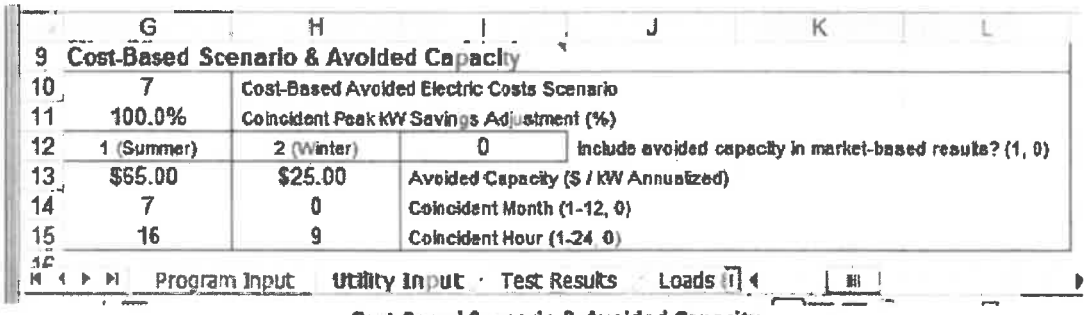
Coincident Peak kW Savings Adjustment (%) (G11)
This input is used to reduce/increase the kW savings during the coincident hour, which are specified below. This factor is applied to the non-coincident kW savings if the coincident hour is set to zero. This factor applies to the capacity savings and will impact the T&D savings.

The Peak kW Savings can be applied to two periods, as shown in cells G13:H15. These periods are typically Summer and Winter peak periods; however, any month can be used for either period.

Cost-Based Proxy for Avoided Capacity ($/kW Annualized) (G13 & H13)
The $/kW value of avoided capacity values for each of the two periods are entered into these cells. Entering a zero will ignore the capacity and T&D savings for the period.

Coincident Month (1-12) (G14 & H14)
Enter the coincident month for kW savings for each period. The coincident kW savings are applied to the avoided capacity costs. To indicate no kW savings, enter 0.

Coincident Hour (1-24) (G15 & H15)
Enter the coincident hour for kW savings for each period. The coincident kW savings are applied to the avoided capacity costs. Enter 0 to use the non-coincident kW savings.



	G	H	I	J	K	L
9	Cost-Based Scenario & Avoided Capacity					
10	7	Cost-Based Avoided Electric Costs Scenario				
11	100.0%	Coincident Peak kW Savings Adjustment (%)				
12	1 (Summer)	2 (Winter)	0	Include avoided capacity in market-based results? (1, 0)		
13	$65.00	$25.00	Avoided Capacity ($ / kW Annualized)			
14	7	0	Coincident Month (1-12, 0)			
15	16	9	Coincident Hour (1-24, 0)			

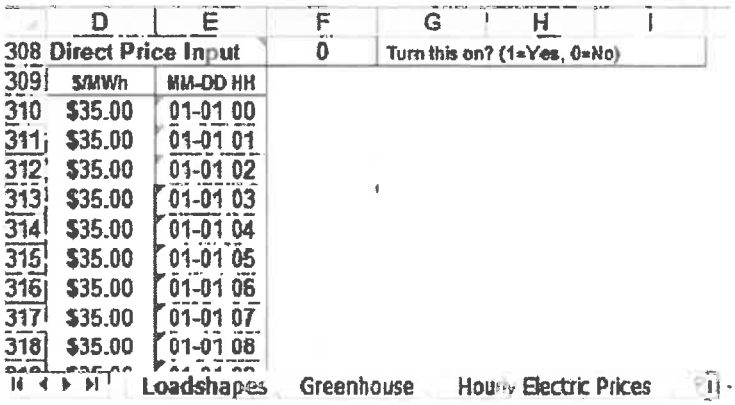
Program Input | Utility Input | Test Results | Loads

Cost-Based Scenario & Avoided Capacity

6.4.3 Customized 8760 Price/Cost Input

DSMore also allows the user to **override the modeled Cost-based prices** for each hour of the year, such that the user may input highly specific, or Commission-mandated, avoided costs. Note that this option will generally produce less covariance, since it foregoes the hourly relationships of weather and hourly costs, opting instead to value a specific avoided hourly cost provided to DSMore by an outside source (e.g., Commission mandate).

To override the DSMore modeled cost-based prices, the user enters the "hard-coded, known" 8,760 hourly prices in Loadshapes!D308:D9069. This option is turned off by default. To enable these prices, Loadshapes!F308 should be changed from 0 to 1. The figure below shows the first few rows of the 8,760 hourly price input section. This mode should only be used where the user knows what the future avoided hourly prices will be, or where the user does not want to include direct weather covariance, or where users are mandated by a regulatory body to comply with a specific set of "known" future avoided costs. Users should note that, in doing so, a loss of valuation precision and accuracy will occur for weather sensitive measures or any measure that covaries with avoided hourly costs.



	D	E	F	G	H	I
308	Direct Price Input		0	Turn this on? (1=Yes, 0=No)		
309	$/MWh	MM-DD HH				
310	$35.00	01-01 00				
311	$35.00	01-01 01				
312	$35.00	01-01 02				
313	$35.00	01-01 03				
314	$35.00	01-01 04				
315	$35.00	01-01 05				
316	$35.00	01-01 06				
317	$35.00	01-01 07				
318	$35.00	01-01 08				

Loadshapes Greenhouse Hourly Electric Prices

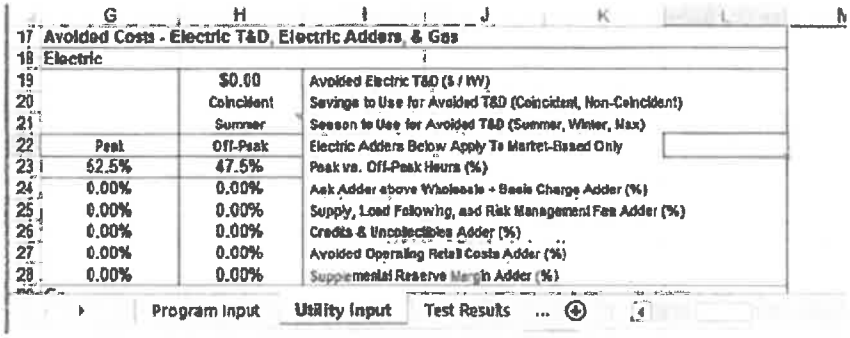
Mode 2- 8760 Price Inputs

6.4.4 Electric Transmission & Distribution Costs (Utility Input!H19:H21)

The Avoided T&D Costs are valued per kW and can be applied to either the system coincident or non-coincident winter or summer kW peak savings. Avoided T&D costs for electric will depend on what specifically is deemed avoidable (e.g., normal T&D operational budgets, capital budgets only, new transmission lines). Each utility should determine its own $ per kW avoidable for T&D (gas and/or electric).

The Avoided T&D Costs data and toggles are found in cells 'Utility Inputs'!H19:H21:

- The avoided electric T&D costs ($/kW) are input in 'Utility Inputs'!H19.
- Selecting "Non-Coincident" 'Utility Inputs'!H20 applies the avoided T&D to the Non-Coincident Peak kW. Selecting "Coincident" 'Utility Inputs'!H20 applies the avoided T&D to the Coincident Peak kW.
- Selecting "Summer" 'Utility Inputs'!H21 applies the avoided T&D to the Summer Peak kW. Selecting "Winter" 'Utility Inputs'!H21 applies the avoided T&D to the Winter Peak kW. Selecting "Max" in 'Utility Inputs'!H21 applies avoided T&D to the maximum of the Winter and Summer Peak kW. The selection in 'Utility Inputs'!H20 determines whether the peak is the coincident or non-coincident peak.



	G	H	I	J	K	L	N
17	Avoided Costs - Electric T&D, Electric Adders, & Gas						
18	Electric						
19		$0.00	Avoided Electric T&D ($ / kW)				
20		Coincident	Savings to Use for Avoided T&D (Coincident, Non-Coincident)				
21		Summer	Season to Use for Avoided T&D (Summer, Winter, Max)				
22	Peak	Off-Peak	Electric Adders Below Apply To Market-Based Only				
23	52.5%	47.5%	Peak vs. Off-Peak Hours (%)				
24	0.00%	0.00%	Ask Adder above Wholesale + Basic Charge Adder (%)				
25	0.00%	0.00%	Supply, Load Following, and Risk Management Fee Adder (%)				
26	0.00%	0.00%	Credits & Uncollectibles Adder (%)				
27	0.00%	0.00%	Avoided Operating Retail Costs Adder (%)				
28	0.00%	0.00%	Supplemental Reserve Margin Adder (%)				

Program Input | Utility Input | Test Results

Avoided Costs Misc. Inputs

Additional complexity can be constructed within DSMore for variable month savings allocations, or allocations based on other LMP or T&D construction schedules, if required. Most utilities simply utilize a dollar per kW avoided T&D cost for all their DSM programs, and additional complexity is typically not required.

Location-specific T&D avoided costs are essential for accurately valuing Distributed Energy Resources (DER) on the utility's distribution system. The locational T&D avoided costs can vary from $0, where there is excess capacity on the distribution system, to over $1,000/kW in distribution constrained locations. To determine these locational T&D avoided costs, a 20-year granular nodal load shape forecast is required. IA's LoadSEER software is the leading tool in the U.S. for providing this 20-year granular nodal load shape forecast.

6.4.5 Electric Additional Avoided Costs (Utility Input!G23:H28)

In order to accurately characterize the full benefit of DSM programs, the market-based costs should include the full value of regulated supply including, but not limited to transmission, congestion, reliability, fuel adjustment and other "uplift" charges.[5] DSMore allows for several of these costs, and the user can value the avoided market costs at either a wholesale or retail level. For a wholesale perspective, energy purchasers pay an ask adder, a supply fee, and some amount of reserve margin (where the buyer faces some volume risks). There is also wholesale seller profit embedded in the offer price to the buyer. From a retail perspective, additional costs exist for credit and uncollectibles (bad debt), and for customer related activity (e.g., billing, metering, customer service, forecasting and load planning, etc.).

[5] Considering the cost of supply, FERC has ruled that both regulated utilities and competitive retail suppliers are subject to "uplift charges". See 20040921-3057 Issued by FERC OSEC 09/21/2004 in Docket#: ER04-742-001, #18.

These additional avoided costs are entered into cells G23:H28 and are entered for both peak and off-peak periods. The figure below presents the Additional Avoided Costs input section.

	G	H	I	J	K	L
17	Avoided Costs - Electric T&D, Electric Adders, & Gas					
18	Electric					
19		$25.00	Avoided Electric T&D ($ / kW)			
20		Non-Coincident	Savings to Use for Avoided T&D (Coincident, Non-Coincident)			
21		Summer	Season to Use for Avoided T&D (Summer, Winter)			
22	Peak	Off-Peak	Electric Adders Below Apply To Market-Based Only			
23	52.5%	47.5%	Peak vs. Off-Peak Hours (%)			
24	15.00%	15.00%	Ask Adder above Wholesale + Basis Charge Adder (%)			
25	15.00%	15.00%	Supply, Load Following, and Risk Management Fee Adder (%)			
26	0.00%	0.00%	Credits & Uncollectibles Adder (%)			
27	0.00%	0.00%	Avoided Operating Retail Costs Adder (%)			
28	5.00%	5.00%	Supplemental Reserve Margin Adder (%)			

Program Input | Utility Input | Test Results | Loads &

Electric Additional Avoided Costs

Peak vs. Off-Peak Hours (%) (G23 & H23)
Enter the ratio of Peak Hours to total hours in cell G23 and the ratio of Off-Peak Hours to total hours in cell H23. These percentages are used to weight the additional avoided cost values entered below.

Ask Adder above Wholesale + Basis Charge (%) (G24 & H24)
Enter the Peak and Off-Peak value of the trader fee adder. This is the bid/ask spread where sellers pay an asking price that is higher than the averages of bids and asks reported within public hub indices, such as MegaWatt Daily. The basis costs are the costs to ship power from a hub to a specific location. These values will be weighted by the Peak and Off-Peak percentages.

Supply, Load Following, and Risk Management Fee (%) (G25 & H25)
Enter the Peak and Off-Peak value of any risk management fee. Load following costs are used to balance purchased power blocks with actual hourly demand. Risk management fees are used to cover supply risk, execution risk, reporting, and management costs. These values will be weighted by the Peak and Off-Peak percentages.

Credits and Uncollectibles (%) (G26 & H26)
Enter the Peak and Off-Peak value of credits or bad debt. These values will be weighted by the Peak and Off-Peak percentages.

Operating Retail Costs Avoided (%) (G27 & H27)

Enter the Peak and Off-Peak value of the avoided customer related activity. Operating retail costs, if any, reflect customer service costs, metering or billing costs. These values will be weighted by the Peak and Off-Peak percentages.

Supplemental Reserve Margin (%) (G28 & H28)
Enter the Peak and Off-Peak value of any supplemental reserve margin. Reserve margin costs reflect additional supply costs, to mitigate risk from extreme weather. Remember that DSMore already values and includes the average covariance risk, or volume risk, for a given loadshape. This implies that, over 30+ years, volume risk is covered about half the time. However, in any single year, a utility can be caught short. Hence, additional adders to mitigate this risk may be needed to ensure supply. These values will be weighted by the Peak and Off-Peak percentages.

It is debatable whether or not these costs are avoided on the margin, or at what level of kWh or CCF savings some, if any, of these avoided retail costs occur. As well, it is not clear whether regulated customers have avoidable retail costs. Likely, there are some, so assuming these to be zero may be unrealistic. But specifying what the avoided operating costs are is difficult, at best.[6] The user can choose whether to reflect these avoided costs or not. More detail on specifying these costs and suggested values is provided in the Technical Appendix.

DSMore allows for the specification of two sets of avoided costs adders, one for peak hours and the other for off peak hours. Some analysts prefer to specify a "peaker" or other capacity proxy for peak hours, whereas a "base load" unit or lower capacity valued option is thought to better reflect off peak requirements. The counterargument to separate capacity values is simply that capacity is only required at peak, and the off-peak values are simply the avoided energy costs. In this case, the capacity off peak would be zero, or not needed.

6.4.6 Gas Additional Avoided Costs (Utility Input!G29:L46)

The Additional Avoided Cost section of the Utility Input worksheet also provides cells to input any additional gas avoided costs. This may pertain to pipe replacements, capital expenditures for increased pressures, recurring loss reduction expenses, or other annual rolling expenses that may exist. These avoided costs are applied as a $ per CCF value and are applied for each year of the life of the program and are typically quite small if they are included at all.

6.4.6.1 Distribution ($/CCF) (H30)

Enter any distribution avoided costs associated with the purchase of the commodity. This may be a result from buying gas on the wholesale market.

[6] RTOs and ISOs typically just pass on their administrative costs through formula rates to their customers. In a recent FERC proposed settlement, PJM operating charges would be set via a log-term tariff. FERC's approval of this arrangement makes PJM the only RTO or ISO with fixed, long-term administrative rates.

6.4.6.2 Transmission ($/CCF) (H31)

Enter any transmission avoided costs associated with the purchase of the commodity. This may be a result from buying gas on the wholesale market.

6.4.6.3 Include Commodity Avoided Costs in Tests? (H32)

Entering a "0" (for No) in this cell removes the commodity avoided costs from the cost-effectiveness tests. This is useful if the utility using DSMore is not supplying the commodity to the customer. In this case, including the commodity piece would be overstating the utility's benefits and lost revenues.

The next section of the gas avoided costs is used for including any reserve charges associated with the commodity purchase. These reserve charges are in two categories: 1) Short-Term Firm (STF) and 2) Peaking. STF is used to capture the usage component of the reserve charge and the Peaking section adds a premium to the reserve charge to account for the capacity component.

6.4.6.4 Short-Term Firm (STF) ($/CCF) (H35:I46)

For each month, enter any reserve charges paid and the number of days the charge is applicable. This reserve charge is applied to the gas usage for that month, prorated by the days per month.

6.4.6.5 Peaking ($/CCF) (J35:L46)

For each month, enter any reserve charges and premium paid and the number of days the charge is applicable. The reserve charge plus the premium is applied to the gas usage for that month, prorated by the days per month.

	G	H	I	J	K	L
29	Gas					
30		$0.00	Distribution ($ / CCF)			
31		$0.00	Transmission Capacity ($ / CCF)			
32		1	Include Gas Commodity in Avoided Costs? (1=Yes, 0=No)			
33		Short-Term Firm (STF) ($ / CCF)		Peaking ($ / CCF)		
34		Reserve Charge	Days / Month	Reserve Charge	Premium	Days / Month
35	Jan	$0.0300	31	$0.0750	$0.0500	15
36	Feb	$0.0300	28	$0.0000	$0.0000	0
37	Mar	$0.0300	31	$0.0000	$0.0000	0
38	Apr	$0.0000	30	$0.0000	$0.0000	0
39	May	$0.0000	31	$0.0000	$0.0000	0
40	Jun	$0.0000	30	$0.0000	$0.0000	0
41	Jul	$0.0000	31	$0.0000	$0.0000	0
42	Aug	$0.0000	31	$0.0000	$0.0000	0
43	Sep	$0.0000	30	$0.0000	$0.0000	0
44	Oct	$0.0300	31	$0.0000	$0.0000	0
45	Nov	$0.0300	30	$0.0000	$0.0000	0
46	Dec	$0.0300	31	$0.0000	$0.0000	0

Program Input | Utility Input | Test Results | Loads

Gas Additional Avoided Costs

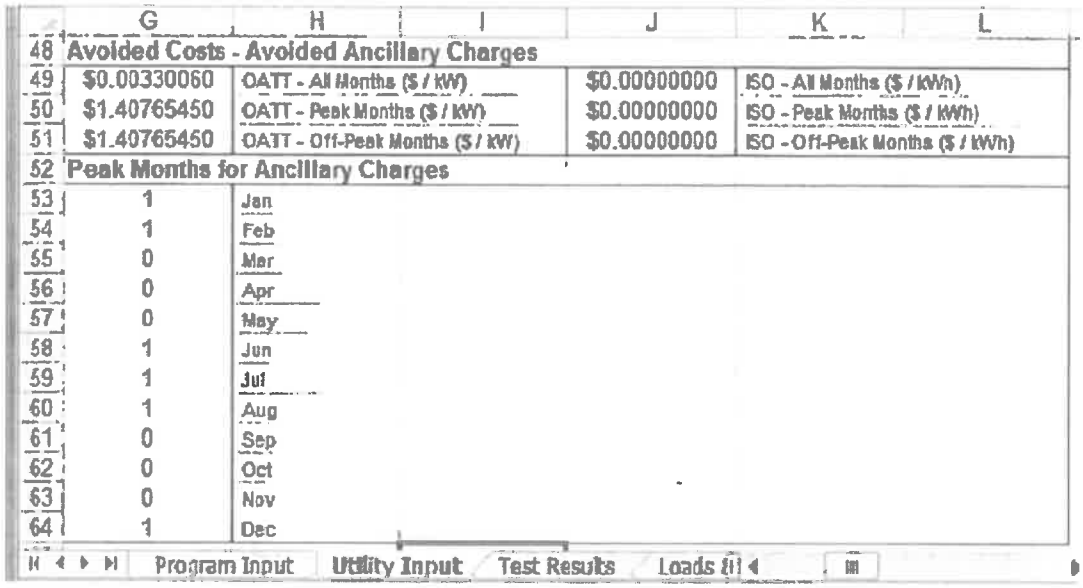
6.4.7 Ancillary Service Charges and Electric Fuel Costs (Utility Input!G48:L64)

Most utilities incur costs for ancillary services within wholesale and some retail markets (e.g., regulation, spinning reserves, transmission reliability fees, RTO charges). These types of charges are usually embedded within electric tariff rates. However, the ancillary service charges entered below also represent the avoided market-based ancillary charges that exist irrespective of embedded, historic costs of service tariffs.[7]

DSMore gives the user the option to use Ancillary Services Charges. If Ancillary Service Charges are not used, then enter zeros into the cells. However, these OATT charges are intended to appropriately reflect the avoided ancillary costs due to DSM program savings. The magnitude of these avoided costs is not large; however, they do represent avoided costs not represented elsewhere within the avoided cost inputs.

Typically, there are several schedules of Ancillary Service Charges, DSMore requires the user to sum up the per kW charges from these schedules by those that apply in all months, peak months, and off-peak months. These Ancillary Service Charges are split into two categories: 1) OATT or Open Access Transmission Tariffs, which account for the capacity component ($/kW) and 2) ISO, which account for the usage component ($/kWh) of the Ancillary Service Charges.

[7] Avoided Market Based Ancillary Service Charges represent the energy consumer's reliability obligation separate from the utility's long-term ancillary service capital requirements embedded in the rate-base.



	G	H	I	J	K	L
48	**Avoided Costs - Avoided Ancillary Charges**					
49	$0.00330060	OATT - All Months ($ / kW)		$0.00000000	ISO - All Months ($ / kWh)	
50	$1.40765450	OATT - Peak Months ($ / kW)		$0.00000000	ISO - Peak Months ($ / kWh)	
51	$1.40765450	OATT - Off-Peak Months ($ / kW)		$0.00000000	ISO - Off-Peak Months ($ / kWh)	
52	**Peak Months for Ancillary Charges**					
53	1	Jan				
54	1	Feb				
55	0	Mar				
56	0	Apr				
57	0	May				
58	1	Jun				
59	1	Jul				
60	1	Aug				
61	0	Sep				
62	0	Oct				
63	0	Nov				
64	1	Dec				

Program Input | Utility Input | Test Results | Loads

Avoided Ancillary Charges and Electric Fuel Costs

6.4.7.1 OATT – All Months ($/kW) (G49)

Enter the total of the Ancillary Service **capacity** charges that apply for all months.

6.4.7.2 OATT – Peak Months ($/kW) (G50)

Enter the total of the Ancillary Service **capacity** charges that apply for only peak months. The peak and off-peak months are defined in cells G53:G64.

6.4.7.3 OATT – Off-Peak Months ($/kW) (G51)

Enter the total of the Ancillary Service **consumption** charges that apply for only off-peak months. The peak and off-peak months are defined in cells G53:G64.

6.4.7.4 ISO – All Months ($/kWh) (J49)

Enter the total of the Ancillary Service **consumption** charges that apply for all months.

6.4.7.5 ISO – Peak Months ($/kWh) (J50)

Enter the total of the Ancillary Service **consumption** charges that apply for only peak months. The peak and off-peak months are defined in cells G53:G64.

6.4.7.6 ISO – Off-Peak Months ($/kWh) (J51)

Enter the total of the Ancillary Service **consumption** charges that apply for only off-peak months. The peak and off-peak months are defined in cells G53:G64.

6.4.8 Other Benefits (Utility Input!G66:L78)

There are three sets of avoided societal costs: Environmental, Ratepayer Arrearage and Household Benefits. These three sets of avoided societal costs allow for sufficient flexibility to model a wide variety of environmental and other societal benefits. The only benefit not available would be a $ per kW value, which could be added as a model enhancement if an instance of such a benefit arises.

6.4.8.1 Environmental (G69:G74)

Environmental benefits can be added in this section in terms of electric ($/kWh) and gas ($/CCF) societal savings. Cells are provided for a variety of avoided environmental benefits; however, the user may change any of the labels and or create their own, or aggregate multiple avoided pollutants elsewhere and place the total values within any of these cells.

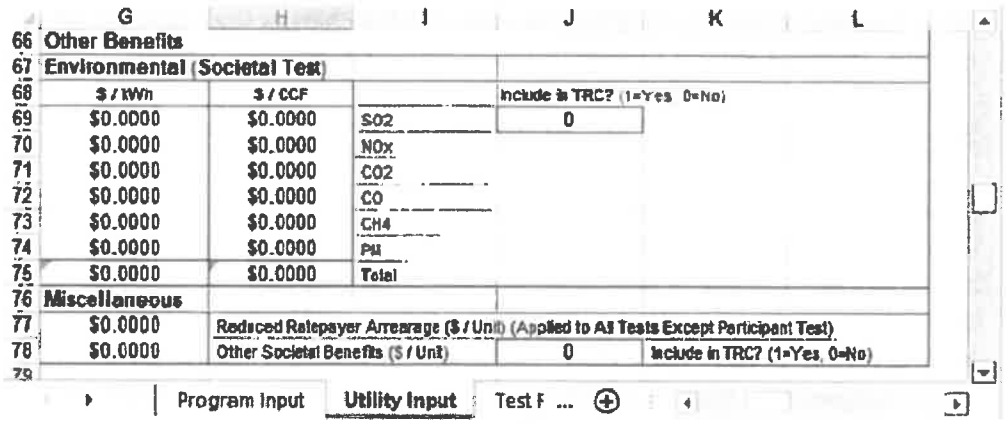
6.4.8.2 Ratepayer Arrearage (G77)

Some programs provide improvements in the arrearages owed to the utility. These are clearly societal benefits, but if values are entered here, the benefits are actually valued within all tests including the Utility Test, the TRC, RIM, and Societal Tests.

6.4.8.3 Other Societal Benefits (G78)

Other Societal Benefits allows a flat dollar value to be assigned for each customer or unit, irrespective of kWh or CCF usage.

In some jurisdictions, some of the societal benefits are added to the TRC benefits to create a modified TRC test. For each of the benefits included in the "Other Benefits" section of the utility, a toggle has been included to allow the user to include the benefit in the TRC test. The default is to not include these benefits in the TRC test.



	G	H	I	J	K	L
66	Other Benefits					
67	Environmental (Societal Test)					
68	$ / kWh	$ / CCF		Include in TRC? (1=Yes 0=No)		
69	$0.0000	$0.0000	SO2	0		
70	$0.0000	$0.0000	NOx			
71	$0.0000	$0.0000	CO2			
72	$0.0000	$0.0000	CO			
73	$0.0000	$0.0000	CH4			
74	$0.0000	$0.0000	PM			
75	$0.0000	$0.0000	Total			
76	Miscellaneous					
77	$0.0000	Reduced Ratepayer Arrearage ($ / Unit) (Applied to All Tests Except Participant Test)				
78	$0.0000	Other Societal Benefits ($ / Unit)		0	Include in TRC? (1=Yes, 0=No)	
79						

Program Input | Utility Input | Test F ...

Societal Benefits Inputs

6.5 Discount Rate Matrix (Utility Input!N1:U15)

Beginning with the 2011 version of DSMore, a Discount Rate Matrix was added to allow the user to vary the discount rates by cost-effectiveness test. The figure below shows the discount rates matrix from the Utility Input worksheet.

The discount rate reflects the time value of money and is used to relate present and future dollars. Discount rates are expressed as a percentage and are used to reduce the value of future dollars in relation to present dollars. Applying a discount rate to varying streams of costs and benefits allows different alternatives to be compared.

As shown in the Discount Rate Matrix, discount rates are applied to nine price categories. The data for these price categories are entered elsewhere in DSMore. Not all price categories are used in all the cost-effectiveness tests. The grey cells in the matrix indicate that the price category is not applicable for that cost-effectiveness test.

The discount rate may depend on the perspective of the cost-effectiveness test. In the example in the figure below, the discount rates from a participant perspective (20%) are much higher than the discount rates from a utility perspective (8%). This corresponds to the difference in return on investments used by these two parties.

	N	O	P	Q	R	S	T	U
1	Discount Rate Matrix (By Test and Cost/Benefit)							
2	Utility (PAC)	TRC	RIM	Societal	Participant			
3	0.00%	0.00%	0.00%	0.00%		Utility Electric Supply Costs		
4	0.00%	0.00%	0.00%	0.00%		Utility Gas Supply Costs		
5	0.00%	0.00%	0.00%	0.00%		Utility Program Costs		
6	0.00%		0.00%		0.00%	Incentives		
7			0.00%			Utility Electric Revenue		
8			0.00%			Utility Gas Revenue		
9		0.00%		0.00%	0.00%	Participant Program Costs		
10		0.00%			0.00%	Participant Tax Credits		
11					0.00%	Participant Electric Bills		
12					0.00%	Participant Gas Bills		
13	0.00%	0.00%	0.00%	0.00%		Arrearage		
14		0.00%		0.00%		Environmental		
15		0.00%		0.00%		Non-Energy		
16								

Program Input | Utility Input | Test Results | Los ...

Discount Rate Matrix

All values are discounted to Year 1 dollars.

$$PV = Year\ 1\ \$ + \frac{Year\ 2\ \$}{(1 + Discount\ Rate)^1} + \frac{Year\ 3\ \$}{(1 + Discount\ Rate)^2} + \frac{Year\ N\ \$}{(1 + Discount\ Rate)^{N-1}}$$

The following example shows how the discount rates work and the relationship of discount rates to prices escalators.

Discount Rate Example							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Electric Bills / Rates Escalator	1.000	1.023	1.047	1.072	1.097	1.122	
Lost Revenue per Participant	$ 13.58	$ 13.89	$ 14.22	$ 14.55	$ 14.89	$ 15.24	
Participants	100	300	300	300	300	200	
Lost Revenue (Electric)	$1,357.84	$4,168.43	$4,265.55	$4,364.94	$4,466.64	$3,047.14	
Discount Rate (RIM)	7.30%						
PV Lost Revenue (Electric)	$1,357.84	$3,884.64	$3,704.89	$3,533.29	$3,369.63	$2,142.37	$ 17,992.86

The electric bill/rate escalator is applied to the calculated Year 1 lost revenue per participant of $13.58. This creates the annual lost revenue participant for each of the 6 years of the example program. The per participant values are multiplied by the number of participants to get the annual lost revenue values. These lost revenues are discounted by the 7.3% discount rate.

For example, in year 4 the lost revenue is $4,364.94 in year 4 dollars equals $3,533.29. To discount the year 4 dollars to year 1 dollars the following formula is used:

$$Year\ 1\ \$ = \frac{Year\ 4\ \$}{(1 + Discount\ Rate)^3} = \frac{\$4{,}364.94}{(1 + 7.3\%)^3} = \frac{\$4{,}364.94}{(1 + 7.3\%)^3} = \frac{\$4{,}364.94}{1.235376} = \$3{,}533.29$$

The total present value (Year 1 $) of the lost revenue is $17,992.86, as shown in the table above. This value is presented for the user in the Test Results worksheets for each test. An example of the lost revenue in the Test Results is shown in the figure below.

75	Administration Costs	$19,319.66	$19,319.66	$19,319.66	$19,319.66	$19,319.66	$19,319.66	7.30%
76	Implementation / Participation Costs	$21,479.50	$21,479.50	$21,479.50	$21,479.50	$21,479.50	$21,479.50	7.30%
77	Other / Miscellaneous Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	7.30%
78	Incentives	$2,863.93	$2,863.93	$2,863.93	$2,863.93	$2,863.93	$2,863.93	7.30%
79	Total	$43,663.09	$43,663.09	$43,663.09	$43,663.09	$43,663.09	$43,663.09	
80	Reduced Awards	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	7.30%
81	Lost Revenue (Electric)	$17,992.86	$16,683.36	$17,992.86	$17,992.86	$17,992.86	$19,150.42	7.30%
82	Lost Revenue (Gas)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	7.30%
83	Total	$17,992.86	$16,683.36	$17,992.86	$17,992.86	$17,992.86	$19,150.42	
84	Net Fuel Lost Revenue (Electric)	$8,941.78	$8,290.77	$8,941.78	$8,941.78	$8,941.78	$9,559.40	7.30%
85	Net Fuel Lost Revenue (Gas)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	7.30%

Program Input | Utility Input | Test Results | Loads & Bills | Financial Results | Peak Charts | Loadshapes | Greenhouse

Lost Revenue Example

6.6 Revised TRC Test (Utility Input!N18)

There has been a clarification regarding the treatment of the incentives paid to free riders. The California Standard Practice Manual issued a clarifying memo (D.07-09-043), that incentives paid to free riders should be included as an administrative cost in the TRC test. A switch on 'Utility Inputs'!N17 has been added to DSMore to allow the user to apply this revision to the TRC test. The default is not to include the incentives paid to free riders as a program cost.

	N	O	P	Q	R	S	T
17	Revised TRC Test						
18	0	Treat free rider incentives as administration costs? (1 = Yes)					
19							

Program Input | Utility Input | Tes ...

Revised TRC Test

6.7 Levelized Discount Rate (Utility Input!N21)

This is the discount rate used to calculate the levelized annual electric and gas savings used in the levelized cost of energy calculations on the Test Results worksheet.

	N	O	P	Q	R	S	T
20	Levelized Discount Rate						
21	0.00%	Used to Discount Energy and Demand in Cost of Conserved Results (%)					
22							

Program Input | Utility Input | Tes ...

Levelized Discount Rate

6.8 Negative Electric Loads (Utility Input!N24)

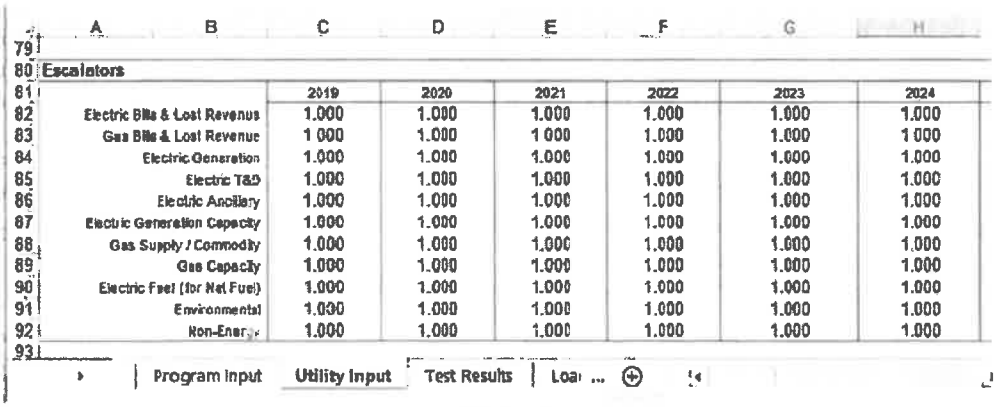
DSMore will report a warning if the user attempts to enter savings that exceed the pre-load shape for any hour (i.e., produces a negative post-load). Any negative post-loads will also be zeroed out. However, there may be situations where the load shape could realistically go negative, e.g., solar net metering. This toggle overrides DSMore's negative electric loads warning and allows the analysis to continue with the negative electric loads.

Negative Electric Loads

6.9 Escalators (Utility Input!A82:AA92)

This section allows the user to escalate many of the utility costs and benefits that were input previously in this worksheet. Annual cost escalators are available for electric bills, gas bills, electric generation market prices, electric T&D, electric ancillary or RTO markets, electric capacity, gas supply, gas capacity, electric fuel adjustment, environmental, and non-energy benefits.

Cumulative cost escalators are entered for each year of the measure. The figure below presents the first few years of the Escalator inputs. For each year the cost escalator is the amount of change in the cost relative to the base year, not to the previous year.



Escalators

For example, if the user expects a 1% increase in a rate for each year, then the escalators presented in the figure below should be entered for the first eight years.

The formula for converting annual increases in rates into the cost escalators is as follows:

$$Cost\ Escalator = (1 + Annual\ Change)^{Year-1}$$

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Escalation Rate Relative to Year 1	0%	1%	1%	1%	1%	1%
Formula	$=(1+0\%)^0$	$=(1+1\%)^1$	$=(1+1\%)^2$	$=(1+1\%)^3$	$=(1+1\%)^4$	$=(1+1\%)^5$
Escalator	1.000	1.010	1.020	1.030	1.041	1.051

Cost Escalator Example

The escalators go out for 25 years. If the measure/program life is longer than 25 years, there is a column at the end of the escalators table call **Growth Factor** that allows an escalation factor to be entered for years 26 and beyond. This growth factor should be entered as an **annual** escalation factor (i.e., the growth from year to year).

The **Growth Factor** is the rate at which the Year 25 escalator grows. For example, a value of 1.03 would mean the Year 25 escalator would increase at a 3% rate for each remaining year (years 26 and on). A value of 1.0 would mean that remaining years would continue to use the Year 25 escalator unchanged. Note that the growth factor is different than the escalators. It is used to grow the Year 25 escalator.

Since growth factors are applied from year to year, and not relative to the base year, DSMore will generate a warning if the growth factor is larger than 1.05 (5% increase from year-to-year) or less than 0.95 (5% decrease from year to year). This warning is there to catch mistakes where a formula is accidentally copied across the escalators into the growth factor section, or where the user assumes the factor is relative to the base year.

6.9.1 Electric Bills & Lost Revenues

The electric bills escalators are applied to the calculated first year electric bill from the utility rate date entered in cells 'Utility Input'!A6:E52.

6.9.2 Gas Bills & Lost Revenues

The gas bills escalators are applied to the calculated first year gas bill from the utility rate date entered in cells 'Utility Input'!A54:E73.

6.9.3 Electric Generation

The electric generation escalators are applied to the avoided electric generation value for the selected scenario. The escalator is applied the avoided cost value in cells 'Utility Input'!B99:B119 that corresponds to the selected market-based cost scenario.

6.9.4 Avoided Electric T&D

The avoided electric T&D escalators are applied to the electric T&D value in cell H19.

6.9.5 Avoided Electric Ancillary Market

The avoided electric ancillary market escalators are applied to the ancillary market values in cells G49:G51 and J49:J51.

6.9.6 Avoided Electric Generation Capacity

The avoided electric generation capacity escalators are applied to the summer and winter avoided capacity values in cells G13 and H13, respectively.

6.9.7 Avoided Gas Supply / Commodity

The avoided gas supply/commodity escalators are applied to the Actual Gas Cost Recovery monthly values in cells A62:A73.

6.9.8 Avoided Gas Capacity

The avoided gas capacity escalators are applied to the monthly short-term gas reserve costs in cells H35:H46, the monthly peaking gas reserve costs in cells J35:J46, and the monthly peaking gas premium costs in cells K35:K46.

6.9.9 Electric Fuel (for Net Fuel)

The electric fuel escalators are applied to the monthly electric fuel costs in cells D41:D52.

6.9.10 Environmental

The environmental escalators are applied to the environmental costs in cells G69:H74.

6.9.11 Non-Energy

The non-energy escalators are applied to the arrearage and other societal benefits in cells G77:G78.

7 End Use Worksheet

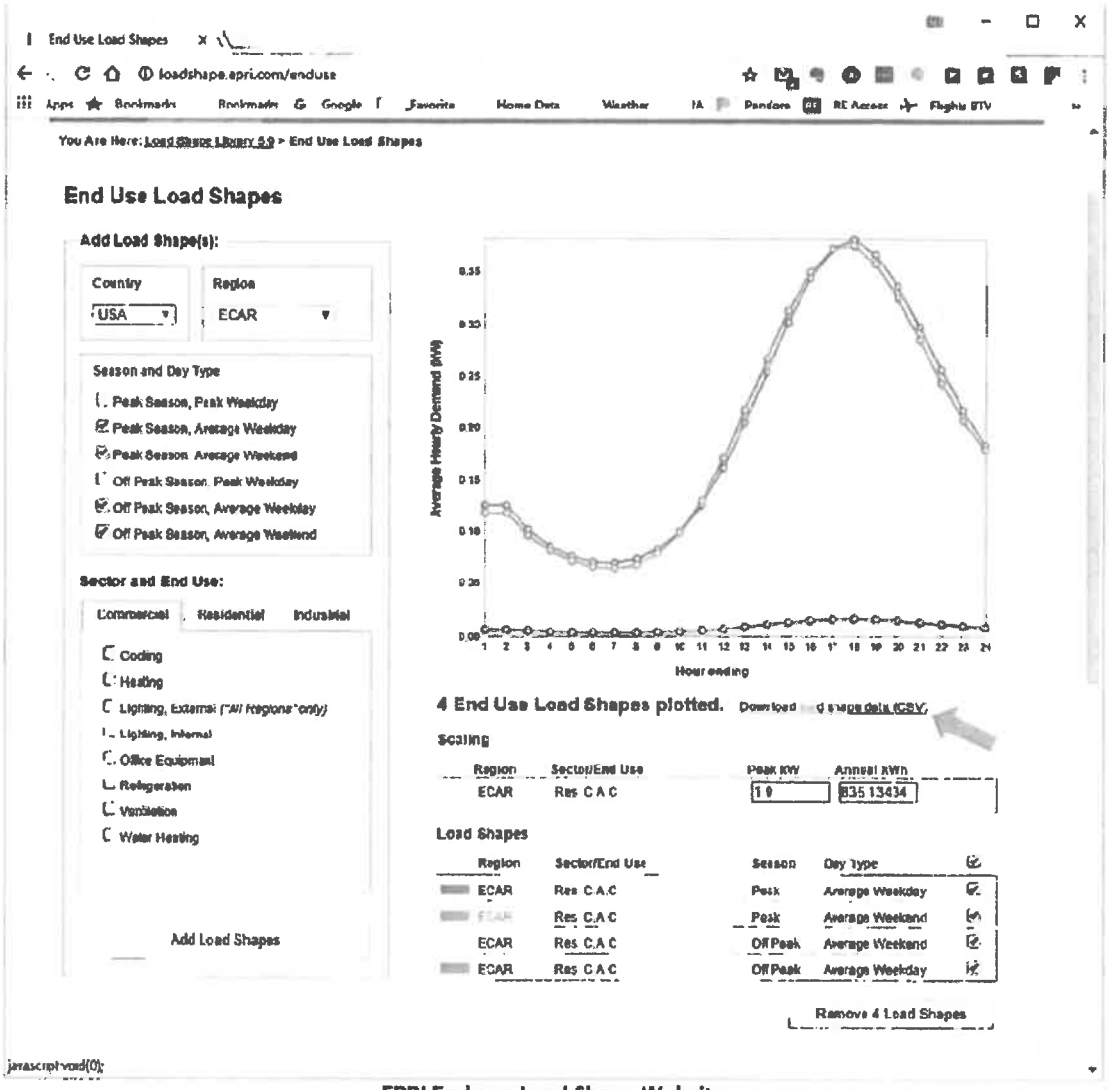
The End Use worksheet is used for creating Mode 2 savings load shapes from the EPRI end-use load shapes or from user-provided 8760 load shapes. The following sections detail the steps needed to use the EPRI or user-provided end-use shapes to create and import savings shapes into the Mode 2 Loadshapes worksheet.

7.1 Importing EPRI End-Use Load Shapes

Importing EPRI end-use shapes is a two-step process. The user first downloads the desired shapes into the appropriate DSMore folder and then configures a handful of inputs to allow DSMore to convert the end-use shape into a savings shape.

7.1.1 Downloading End-Use Shapes from EPRI

The first step to add EPRI end-use load shapes is browse to the EPRI end-use website: http://loadshape.epri.com/enduse. The figure below presents a screen shot of the EPRI End-use website.



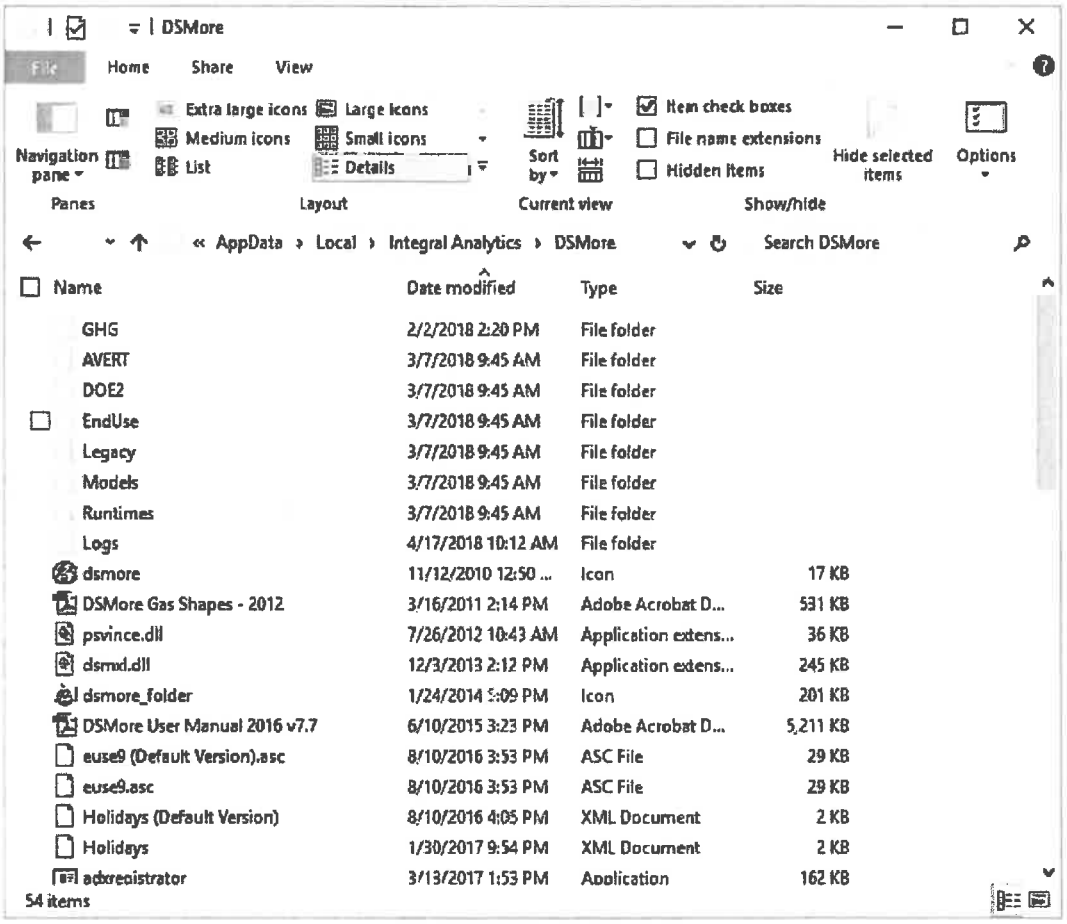
EPRI End-use Load Shape Website

Choose the applicable NERC region in the "Region" dropdown. Select only the following four (4) of the "Season and Day Type":

- Peak Season, Average Weekday
- Peak Season, Average Weekend
- Off Peak Season, Average Weekday
- Off Peak Season, Average Weekend

Next choose the Sector and End use and click on "Add Load Shapes". The selected end-use load shapes will be loaded and graphed on the EPRI webpage. To export the four load shapes, click on "Download load shapes data (CSV)" link right below the graph. The file will be downloaded to the user's download folder. Copy the downloaded file to the End Use

folder in the DSMore directory (see the figure below). **To update the End Use worksheet, DSMore needs to be closed and reopened.**



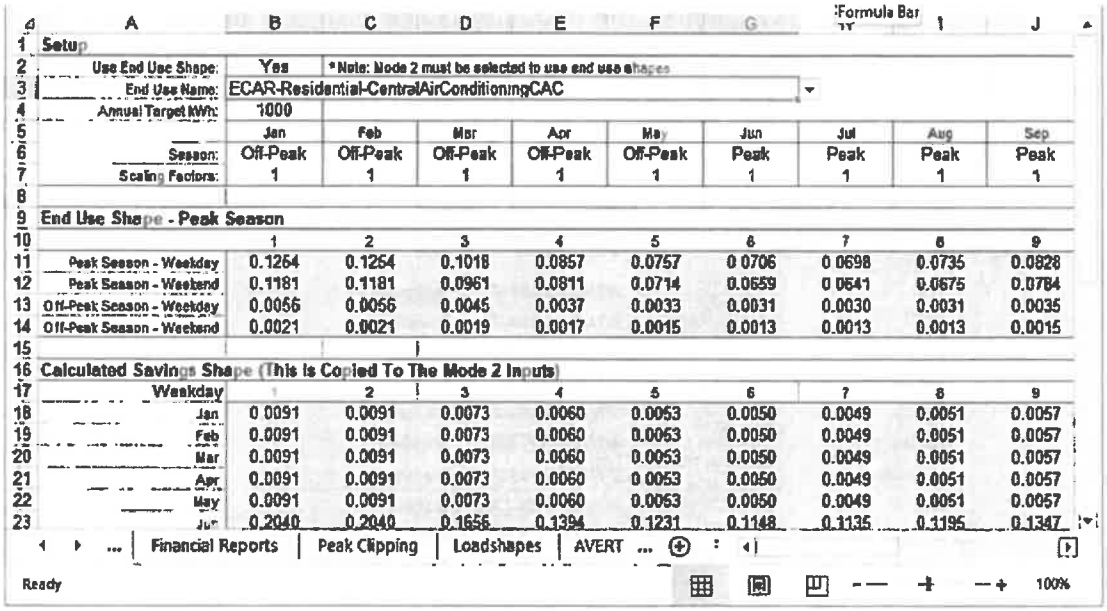
Location of the EndUse folder

7.1.2 Create Savings Load Shape

Creating the savings load shape from the EPRI end-use load shapes uses the same process as Mode 3. Use the following steps to create a savings load shape (see the figure below).

1. From the dropdown menu in 'End Use'!B3, select the end-use load shape to modify.
2. Enter the total annual savings in 'End Use'!B4.
3. In cells 'End Use'!B6:M6, enter the season type (Peak or Off-Peak) to use for each month.
4. In cells 'End Use'!B7:M7, enter the end-use load shape adjustment. For example, if there are no savings in January, 'End Use'!B7 should be zero.

5. Once the inputs have been entered, click on "Evaluate" in the DSMore Ribbon bar to update the values in the End Use worksheet. The updated end-use load shape will automatically be copied over to the Loadshapes sheet.



	A	B	C	D	E	F	G	H	I	J
1	Setup									
2	Use End Use Shape:	Yes	* Note: Mode 2 must be selected to use end use shapes							
3	End Use Name:	ECAR-Residential-CentralAirConditioningCAC								
4	Annual Target MWh:	1000								
5		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
6	Season:	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Off-Peak	Peak	Peak	Peak	Peak
7	Scaling Factors:	1	1	1	1	1	1	1	1	1
8										
9	End Use Shape - Peak Season									
10		1	2	3	4	5	6	7	8	9
11	Peak Season - Weekday	0.1264	0.1264	0.1018	0.0857	0.0757	0.0706	0.0698	0.0735	0.0828
12	Peak Season - Weekend	0.1181	0.1181	0.0961	0.0811	0.0714	0.0659	0.0641	0.0675	0.0784
13	Off-Peak Season - Weekday	0.0056	0.0056	0.0045	0.0037	0.0033	0.0031	0.0030	0.0031	0.0035
14	Off-Peak Season - Weekend	0.0021	0.0021	0.0019	0.0017	0.0015	0.0013	0.0013	0.0013	0.0015
15										
16	Calculated Savings Shape (This is Copied To The Mode 2 Inputs)									
17	Weekday	1	2	3	4	5	6	7	8	9
18	Jan	0.0091	0.0091	0.0073	0.0060	0.0053	0.0050	0.0049	0.0051	0.0057
19	Feb	0.0091	0.0091	0.0073	0.0060	0.0053	0.0050	0.0049	0.0051	0.0057
20	Mar	0.0091	0.0091	0.0073	0.0060	0.0053	0.0050	0.0049	0.0051	0.0057
21	Apr	0.0091	0.0091	0.0073	0.0060	0.0053	0.0050	0.0049	0.0051	0.0057
22	May	0.0091	0.0091	0.0073	0.0060	0.0053	0.0050	0.0049	0.0051	0.0057
23	Jun	0.2040	0.2040	0.1656	0.1394	0.1231	0.1148	0.1135	0.1195	0.1347

End Use Worksheet

7.2 Importing User-Provided End-Use Load Shapes

Importing user-provided end-use shapes is done entirely from the End Use worksheet.

1. Enter the 8760 end-use shape into the "8760 End-Use Shape Input" section of the worksheet, starting at 'End Use'!A44, and specify the calendar year of the shape.
2. Enter the total annual savings in 'End Use'!B4.
3. In cells 'End Use'!B6:M6, enter the season type (Peak or Off-Peak) to use for each month.
4. In cells 'End Use'!B7:M7, enter the end-use load shape adjustment. For example, if there are no savings in January, 'End Use'!B7 should be zero.
5. Once the inputs have been entered, click on "Evaluate" in the DSMore Ribbon bar to update the values in the End Use worksheet. The updated end-use load shape will automatically be copied over to the Loadshapes sheet.

8 TOU Worksheet

TOU rates are entered on the TOU worksheet in a similar fashion as Mode 2 savings, i.e., hourly by day-type and by month. The TOU rates can be applied to the pre-shape, the post-shape, or both. Using a standard rate for the pre-shape and TOU rate for the post-shape allows evaluating the TOU rate as a "measure". For example, using mode 2, savings can be entered in peak hours (and load added to off-peak hours) to represent changes in behavior from switching to a TOU rate.
If the toggle in TOU!A2 is set to "Yes" then the rate values on the TOU sheet will override the rates entered in cells Utility Input!A6:E52.

	A	B	C	D	E	F	G
1	TOU Setup						
2	No	Use TOU for Pre-Rate?					
3	No	Use TOU for Post-Rate?					
4							
5	TOU Rate						
6	$0.00	Flat Charge ($)					
7	$0.00	Usage Riders ($ / kWh)					
8	0.00%	Tax (% of $)					
9	Usage Charges ($ / kWh)						
10		Weekday					
11	Hour Ending	1	2	3	4	5	6
12	Jan	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
13	Feb	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
14	Mar	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
15	Apr	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
16	May	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
17	Jun	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
18	Jul	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
19	Aug	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
20	Sep	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
21	Oct	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
22	Nov	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
23	Dec	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
24		Weekend					
25	Hour Ending	1	2	3	4	5	6
26	Jan	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
27	Feb	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
28	Mar	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000

TOU Inputs

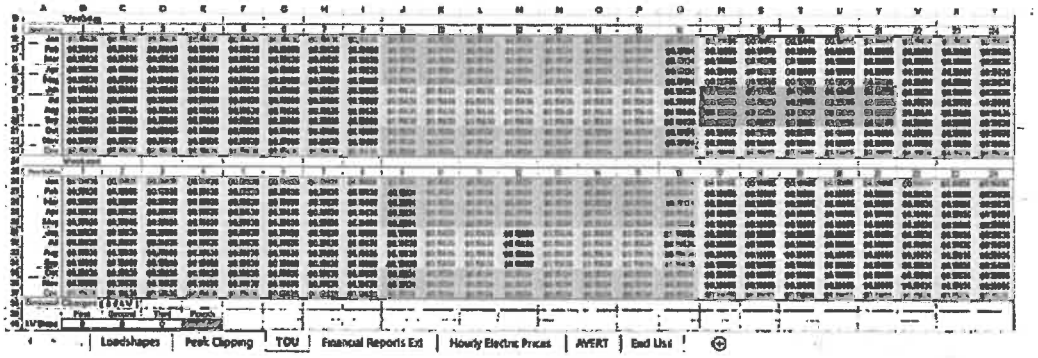
Demand charges by month and demand block are entered in cell TOU!B40:E52.

	A	B	C	D	E
38	Demand Charges ($ / kW)				
39		First	Second	Third	Fourth
40	kW Steps	0	0	0	
41	Jan	$0.00000	$0.00000	$0.00000	$0.00000
42	Feb	$0.00000	$0.00000	$0.00000	$0.00000
43	Mar	$0.00000	$0.00000	$0 00000	$0.00000
44	Apr	$0.00000	$0.00000	$0.00000	$0.00000
45	May	$0.00000	$0.00000	$0.00000	$0.00000
46	Jun	$0.00000	$0.00000	$0.00000	$0.00000
47	Jul	$0.00000	$0.00000	$0.00000	$0.00000
48	Aug	$0 00000	$0.00000	$0.00000	$0 00000
49	Sep	$0.00000	$0.00000	$0.00000	$0.00000
50	Oct	$0.00000	$0.00000	$0.00000	$0.00000
51	Nov	$0.00000	$0.00000	$0.00000	$0.00000
52	Dec	$0.00000	$0.00000	$0.00000	$0.00000
53					

... | Loadshapes | Peak Clipping | TOU | Fina

TOU Demand Charges

The following is an example of using the TOU rate section.



Example TOU Rate

9 DSMore Output and Results

In this section, we describe the output and result files that are available in DSMore. In addition to the program cost and benefit values, DSMore provides detailed cash flows and customer savings.

The DSMore results are reported on eight worksheets in the DSMore workbook as described in the following table.

Worksheet Name	Description
Test Results	Benefit-cost ratios for each SPM test and present value of cashflows
Loads & Bills	Calculation of customer bills with kW, kWh (pre- post- and savings)
Financial Reports	Annual cashflows, costs, and energy savings
Peak Clipping	Mode 4 results
Loadshapes	Pre-, post- and savings load shapes. Mode 2 inputs
AVERT	EPA Greenhouse Gas calculation tool
Hourly Electric Prices	Hourly electric price report for verification
Financial Reports Ext	Extended Financial Reports for runs with > 25 years of values

9.1 Test Results Worksheet

The Test Results worksheet contains the results of the five cost-effectiveness tests presented in four different tables and a table for the cost of conserved energy. Each of the tables provides increasing level of detail on the test results.

- Cost/Benefit Tests for Normal Weather
- Cost/Benefit Test Matrix by Weather/Price Scenarios
- Present Values (PVs) of Costs and Benefits Per Test
- Present Values (PVs) of Impacts
- Cost of Conserved kWh, kW, and CCF

9.1.1 Review of Cost-effectiveness Tests

As discussed in Section 2, the five common cost-effectiveness tests examine the measure from different perspectives. The following formulas describe the tests again using the terminology from the California Standard Practice Manual.

9.1.1.1 Utility (PAC) Test

$$BCR_{pa} = \frac{Avoided\ Costs^*}{Utility\ Costs} = \frac{B_{pa}}{C_{pa}}$$

$$B_{pa} = \sum_{t=1}^{N} \frac{UAC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}} \qquad C_{pa} = \sum_{t=1}^{N} \frac{PRC_t + INC_t + UIC_t}{(1+d)^{t-1}}$$

9.1.1.2 Total Resource Cost (TRC) Test

$$BCR_{TCR} = \frac{Avoided\ Costs^* + Tax\ Saved}{Utility\ Costs + Participant\ Costs\ Net\ of\ Incentives} = \frac{B_{TRC}}{C_{TRC}}$$

$$B_{TRC} = \sum_{t=1}^{N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}} \qquad C_{TRC} = \sum_{t=1}^{N} \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

9.1.1.3 Ratepayer Impact (RIM) Test

$$BCR_{RIM} = \frac{Avoided\ Costs^*}{Utility\ Costs + Lost\ Revenue} = \frac{B_{RIM}}{C_{RIM}}$$

$$B_{RIM} = \sum_{t=1}^{N} \frac{UAC_t + RG_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}}$$

$$C_{RIM} = \sum_{t=1}^{N} \frac{PRC_t + RL_t + UIC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{RL_{at}}{(1+d)^{t-1}}$$

9.1.1.4 Ratepayer Impact (RIM) Net Fuel Test

$$BCR_{RIM} = \frac{Avoided\ Costs^*}{Utility\ Costs + Lost\ Revenue\ Net\ of\ Fuel} = \frac{B_{RIM}}{C_{RIM}}$$

$$B_{RIM} = \sum_{t=1}^{N} \frac{UAC_t + RG(net\ fuel)_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}}$$

$$C_{RIM} = \sum_{t=1}^{N} \frac{PRC_t + RL(net\ fuel)_t + UIC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{RL(net\ fuel)_{at}}{(1+d)^{t-1}}$$

9.1.1.5 Societal Test

$$BCR_{Societal} = \frac{Avoided\ Costs^{*} + Tax\ Saved + Environmental + Other}{Utility\ Costs + Participant\ Costs\ Net\ of\ Incentives} = \frac{B_{Societal}}{C_{Societal}}$$

$$B_{Societal} = \sum_{t=1}^{N} \frac{UAC_t + TC_t + NEB_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}$$

$$C_{Societal} = \sum_{t=1}^{N} \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

9.1.1.6 Participant Test

$$BCR_{Part} = \frac{Lost\ Revenue + Incentives + Tax\ Savings}{Participant\ Costs} = \frac{B_{Part}}{C_{Part}}$$

$$B_{Part} = \sum_{t=1}^{N} \frac{BR_t + TC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{BR_{at} + PAC_{at}}{(1+d)^{t-1}} \qquad C_{Part} = \sum_{t=1}^{N} \frac{PC_t + BI_t}{(1+d)^{t-1}}$$

Where:

BCR_x	= benefit-cost ratio of test *x*
B_x	= NPV of benefit of test *x*
C_x	= NPV of costs of test *x*
BR_t	= Bill reductions in year *t*
BR_{at}	= Bill reductions from alternative fuel in year *t*
BI_t	= Participant bill increase in year *t*
d	= Discount rate

INC_t	= Incentives paid to participant by the sponsoring utility in year *t*
NEB_t	= Non-energy benefits in year *t*
PAC_{at}	= Participant avoided costs in year *t* for alternative fuel
PC_t	= Participant costs in year *t*
PCN_t	= Net participant costs in year *t*
PRC_t	= Program administrator costs in year *t*
UAC_t	= Utility avoided supply costs in year *t*
UAC_{at}	= Utility avoided supply costs for alternative fuel in year *t*
UIC_t	= Utility increase supply costs in year *t*
RG_t	= Revenue gain from increased sales in year *t*
RG_{at}	= Revenue gain from increased sales for alternative fuel in year *t*
$RG(\text{net fuel})_t$	= Revenue gain net of fuel costs from increased sales in year *t*
$RG(\text{net fuel})_{at}$	= Revenue gain net of fuel costs from increased sales for alternative fuel in year *t*
RL_t	= Revenue loss from reduced sales in year *t*
RL_{at}	= Revenue loss from reduced sales for alternative fuel in year *t*
$RL(\text{net fuel})_t$	= Revenue loss net of fuel costs from reduced sales in year *t*
$RL(\text{net fuel})_{ot}$	= Revenue loss net of fuel costs from reduced sales for alternative fuel in year *t*
TC_t	= Tax credits in year *t*

*includes societal arrearage

IMPORTANT: DSMore follows the California Standard Practice Manual in terms of allocating negative benefits and positive costs. If a benefit has a negative value this will be added to the costs for the cost-benefit tests. Likewise, if a cost has a positive value, it will be included as a benefit for the cost-effectiveness test.

9.1.2 Cost/Benefit Tests for Normal Weather

Note: The test results are also presented in Program Input!H5:J10 for quick reference.

The cost-effectiveness test results for the average, or normal, weather conditions from the weather years are provided on the Test Results worksheet starting in Row 1. This provides the user the expected test results to the normal weather year. The table presents the tests results under the following six pricing scenarios:

- Cost-Based – uses the cost-based pricing scenario entered in 'Utility Inputs'!G9. Typically this is scenario 1.
- Minimum Value – test results using the minimum price scenario presented in 'Utility Inputs'!A95:F115
- Today's Value - uses the market-based pricing scenario entered in 'Utility Inputs'!G4.
- Alternative Value - uses the market-based pricing scenario entered in 'Utility Inputs'!G4.

- Option Value – weighted average of all market-based scenarios using the weighting factors in 'Utility Inputs'!H95:I115
- Maximum Value – test results using the maximum price scenario presented in 'Utility Inputs'!A95:F115

Three other sets of tests are also provided in the table. Two of these refer back to the set of inputs shown below. For Today's Value, the test reflects the avoided costs that reside within the scenario number specified in the Utility Input worksheet (1 to 21). Changing the number in this cell changes the market prices that are to be avoided, given current or today's market conditions. The test value shown in Today's test result only reflects the snapshot test value for this particular set of assumed market prices. In addition, some analysts like to compare and evaluate programs against alternative plants or alternative market prices. Different market price scenarios for these values (e.g., gas peaker price) or a slightly higher market price can be specified. Many analysts use the Today scenario and the Alternative scenario to interpolate results for more precision. If the current market price forecast lies between two of the 21 scenarios, put the lower scenario in the Today cell and the upper market price in the Alternative cell and interpolate custom test result between these two bounds. The figure below presents an example of this table.

	A	B	C	D	E	F	G
1	Cost / Benefit Tests For Normal Weather						
2			Market-Based				
3		Cost Based	Minimum	Today	Alternate	Option	Maximum
4	Utility (PAC) Test	2.17	1.03	1.86	1.99	1.74	7.37
5	TRC Test	1.16	0.55	1.00	1.07	0.93	3.96
6	RIM Test	0.87	0.43	0.74	0.80	0.70	2.88
7	RIM (Net Fuel)	1.35	0.65	1.16	1.25	1.09	4.53
8	Societal Test	1.16	0.55	1.00	1.07	0.93	3.96
9	Participant Test	1.54	1.48	1.54	1.54	1.54	1.62
10							

Program Input | Utility Input | Test Results | Loads & Bills | Financial Reports

Cost/Benefit Tests for Normal Weather

9.1.3 Cost/Benefit Test Matrix by Weather/Price Scenarios

The next table presents the test results by weather/price scenario (see the figure below). During more extreme weather years, more savings are expected for weather-dependent measures. The usage and savings values vary over mild, normal, and extreme weather scenario conditions. The mild weather scenario is the lowest of the 30+ weather scenarios used in the DSMore analysis, and the extreme weather scenario is the highest test result. The range of cost-effectiveness that is caused by varying the weather data reinforces the caution that utilities should not depend too much on the test results from a single observed year of weather impacts.

The results of each of the cost-effectiveness test are presented for the three weather scenarios (mild, normal, and extreme). The test results for the normal weather conditions will correspond to the test results reported above in the Cost/Benefit Tests for Normal

Weather table. The kWh savings are included in this table to show how the savings vary by the weather condition.

	A	B	C	D	E	F	G
11	Cost / Benefit Test Matrix By Weather / Price Scenarios						
12				Market-Based			
13	Usage/Weather Scenarios	Test	Cost Based	Low	Median	High	kWh Savings
14	Mild Year	Utility (PAC)	2.07	1.03	2.09	3.40	1619.4
15	Normal Year	Utility (PAC)	2.17	1.06	2.32	4.16	1650.0
16	Extreme Year	Utility (PAC)	2.31	1.10	2.77	7.30	1701.4
17	Mild Year	TRC	1.11	0.55	1.12	1.82	1619.4
18	Normal Year	TRC	1.16	0.57	1.25	2.23	1650.0
19	Extreme Year	TRC	1.24	0.59	1.49	3.92	1701.4
20	Mild Year	RIM	0.84	0.43	0.84	1.39	1619.4
21	Normal Year	RIM	0.87	0.43	0.94	1.67	1650.0
22	Extreme Year	RIM	0.92	0.43	1.10	2.90	1701.4
23	Mild Year	Societal	1.11	0.55	1.12	1.82	1619.4
24	Normal Year	Societal	1.16	0.57	1.25	2.23	1650.0
25	Extreme Year	Societal	1.24	0.59	1.49	3.92	1701.4
26	Mild Year	Participant	1.48	1.48	1.48	1.48	1619.4
27	Normal Year	Participant	1.54	1.54	1.54	1.54	1650.0
28	Extreme Year	Participant	1.61	1.61	1.61	1.61	1701.4

Program Input | Utility Input | Test Results | Loads & Bills | Financial Reports

Cost/Benefit by Weather/Price Scenario

9.1.4 Present Values (PVs) of Costs and Benefits Per Test

The third table on the Test Results worksheet provides the present values of the cost and benefits, as well as the discount rates that were used to calculate the test results for the normal weather year (see the figure below).

D48 =(D41+D47)/D46

	A	B	C	D	E	F	G	H
30	Present Values (PVs) of Costs and Benefits Per Test							
31		Cost	Market-Based					Discount
32		Based	Minimum	Today	Alternate	Option	Maximum	Rate Used
33	Utility (PAC) Test							
34	Avoided Electric Production	$317,592.23	$146,301.18	$317,592.23	$345,559.42	$358,342.61	$1,763,480.20	8.00%
35	Avoided Electric Production Adders	$0.00	$51,205.41	$111,157.28	$120,945.80	$125,419.91	$617,218.07	8.00%
36	Avoided Electric Capacity	$242,041.84	$0.00	$0.00	$0.00	$0.00	$0.00	8.00%
37	Avoided T&D Electric	$98,050.98	$98,050.98	$98,050.98	$98,050.98	$98,050.98	$98,050.98	8.00%
38	Avoided Ancillary	$22,135.28	$22,135.28	$22,135.28	$22,135.28	$22,135.28	$22,135.28	8.00%
39	Avoided Gas Production	$239,128.46	$111,106.23	$239,128.46	$257,697.86	$131,117.18	$654,449.12	8.00%
40	Avoided Gas Capacity	$13,151.27	$12,368.91	$13,151.27	$13,151.27	$13,151.27	$13,965.18	8.00%
41	Total	$932,100.06	$441,167.99	$801,215.50	$857,540.62	$748,217.24	$3,169,298.83	
42	Administration Costs	$215,606.34	$215,606.34	$215,606.34	$215,606.34	$215,606.34	$215,606.34	8.00%
43	Implementation / Participation Costs	$108,827.14	$108,827.14	$108,827.14	$108,827.14	$108,827.14	$108,827.14	8.00%
44	Other / Miscellaneous Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	8.00%
45	Incentives	$105,555.56	$105,555.56	$105,555.56	$105,555.56	$105,555.56	$105,555.56	8.00%
46	Total	$429,989.04	$429,989.04	$429,989.04	$429,989.04	$429,989.04	$429,989.04	
47	Reduced Arrears	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	8.00%
48	Test Results	2.17	1.03	1.86	1.99	1.74	7.37	

Program Input | Utility Input | Test Results | Loads & Bills | Financial Reports | Peak

Present Values of Costs and Benefits by Test

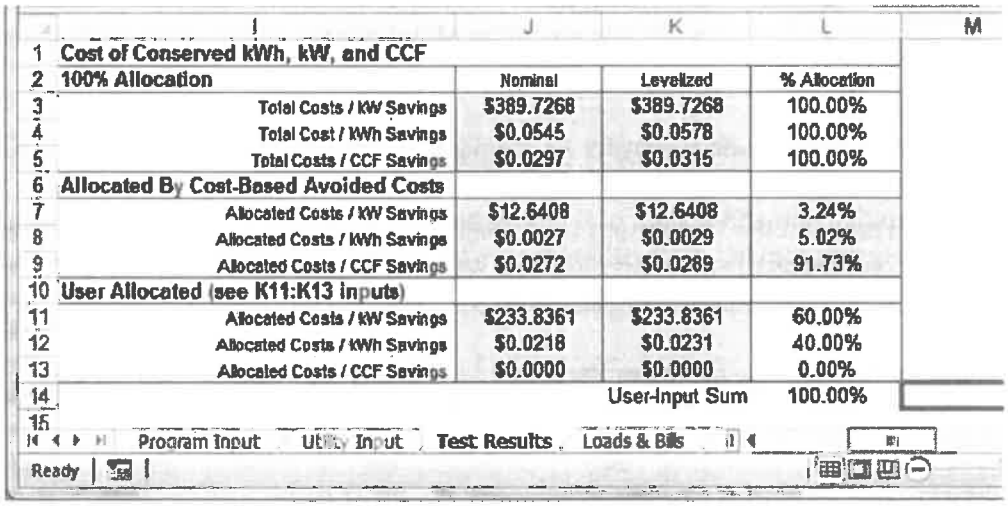
Below the present values of each cost-effectiveness test, the benefit-cost ratios are calculated using Excel formulas. These calculations are added to show the formula used to calculate the benefit-cost ratio and to verify the test results presented in the preceding tables.

The present values of the load impacts are also shown in the table. These values are discounted by the real discount rate and used in the levelized costs calculations.

9.1.5 Cost of Conserved kWh, kW, and CCF

This table allows the user to determine how the cost of the measure or program compares to other alternatives. The Cost of Conserved Energy (CCE) shows the cost of the savings from the measure in three ways:

1. total costs divided by the energy unit (kW, kWh, and CCF),
2. costs allocated by percentage of benefits divided by the energy unit (kW, kWh, and CCF), and
3. costs allocated according to user-defined allocation weightings.



	I	J	K	L	M
1	**Cost of Conserved kWh, kW, and CCF**				
2	**100% Allocation**	Nominal	Levelized	% Allocation	
3	Total Costs / kW Savings	$389.7268	$389.7268	100.00%	
4	Total Cost / kWh Savings	$0.0545	$0.0578	100.00%	
5	Total Costs / CCF Savings	$0.0297	$0.0315	100.00%	
6	**Allocated By Cost-Based Avoided Costs**				
7	Allocated Costs / kW Savings	$12.6408	$12.6408	3.24%	
8	Allocated Costs / kWh Savings	$0.0027	$0.0029	5.02%	
9	Allocated Costs / CCF Savings	$0.0272	$0.0289	91.73%	
10	**User Allocated (see K11:K13 inputs)**				
11	Allocated Costs / kW Savings	$233.8361	$233.8361	60.00%	
12	Allocated Costs / kWh Savings	$0.0218	$0.0231	40.00%	
13	Allocated Costs / CCF Savings	$0.0000	$0.0000	0.00%	
14			User-Input Sum	100.00%	
15					

Program Input | Utility Input | Test Results | Loads & Bills

Ready

Cost of Conserved kWh, kW and CCF

The following formulas describe the Cost of Conserved Energy calculations. The cost data used for these calculations are all presented on the Test Results worksheet under the Present Values (PVs) of Costs and Benefits per Test table. The energy savings are the net totals from the Impact and Savings table on the Financial Reports worksheet.

$$Cost\ of\ Conserved\ kW_{nominal} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} \max(CoinkW_t)}$$

$$Cost\ of\ Conserved\ kWh_{nominal} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} kWh_t}$$

$$Cost\ of\ Conserved\ CCF_{nominal} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} CCF_t}$$

Where:

PRC_t	= Program Administrator program costs in year t
PCN_t	= Net Participant costs in year t
INC_t	= Incentives paid to participant by the sponsoring utility in year t
$CoinkW_t$	= coincident demand (kW) saving in year t
kWh_t	= energy savings (kWh) saving in year t
CCF_t	= gas savings (CCF) saving in year t
N	= lifetime of the measure or program
d	= discount rate
A	= percent allocation of the costs

Important
The cost of conserved energy for kW demand should be used only when trying to evaluate a demand response program, not energy efficiency. This CCE kW economic value represents the avoided demand savings of the program over time, not the savings of capacity at peak over the program life. Older DSMore version results will not match these new numbers.

Discounted savings, using the discount on the Utility Input worksheet, are used to calculate the levelized cost of conserved energy using the following set of equations.

$$Cost\ of\ Conserved\ kW_{levelized} = \frac{PV\ of\ Costs}{PV\ of\ Max\ kW\ Savings} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} \frac{\max(CoinkW_t)}{(1+d)^{t-1}}}$$

$$Cost\ of\ Conserved\ kWh_{levelized} = \frac{PV\ of\ Costs}{PV\ of\ kWh\ Savings} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} \frac{kWh_t}{(1+d)^{t-1}}}$$

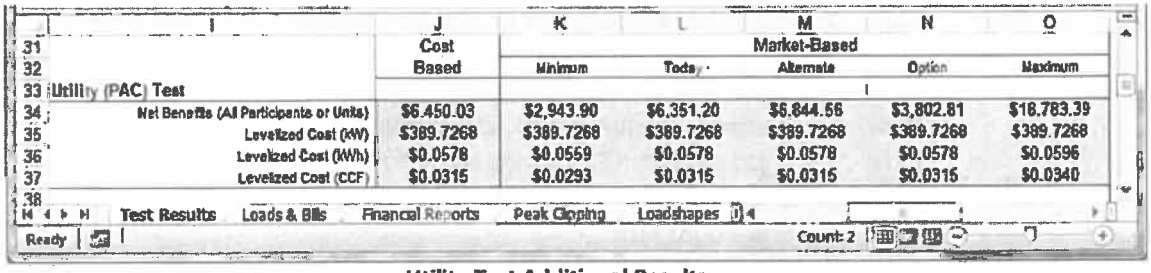
$$Cost\ of\ Conserved\ CCF_{levelized} = \frac{PV\ of\ Costs}{PV\ of\ CCF\ Savings} = \frac{\sum_{t=1}^{N} \frac{PRC_t + PCN_t + INC_t}{(1+d)^{t-1}} \times A}{\sum_{t=1}^{N} \frac{CCF_t}{(1+d)^{t-1}}}$$

All terms are as previously defined.

9.1.6 Additional Test Results

To the right of the Test Results are additional results for each of the tests. These additional results begin in Column I.

9.1.6.1 Utility (PAC) Test



	I	J	K	L	M	N	O
31		Cost			Market-Based		
32		Based	Minimum	Today	Alternate	Option	Maximum
33	Utility (PAC) Test						
34	Net Benefits (All Participants or Units)	$6,450.03	$2,943.90	$6,351.20	$6,844.66	$3,802.81	$18,783.39
35	Levelized Cost (kW)	$389.7268	$389.7268	$389.7268	$389.7268	$389.7268	$399.7268
36	Levelized Cost (kWh)	$0.0578	$0.0569	$0.0578	$0.0578	$0.0578	$0.0596
37	Levelized Cost (CCF)	$0.0315	$0.0293	$0.0315	$0.0315	$0.0315	$0.0340
38							

Test Results | Loads & Bills | Financial Reports | Peak Clipping | Loadshapes

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Utility Test Additional Results

$$\text{Net Benefits (PAC)} = B_{PAC} - C_{PAC} = \left(\sum_{t=1}^{N} \frac{UAC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}}\right) - \sum_{t=1}^{N} \frac{PRC_t + INC_t + UIC_t}{(1+d)^{t-1}}$$

$$\text{Levelized Cost (\$/kW)} = \frac{C_{PAC}}{kW_{levelized}} = \frac{\sum_{t=1}^{N} \frac{PRC_t + INC_t + UIC_t}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{\max(CoInkW_t)}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/kWh)} = \frac{C_{PAC}}{kWh_{levelized}} = \frac{\sum_{t=1}^{N} \frac{PRC_t + INC_t + UIC_t}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{kWh_t}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/CCF)} = \frac{C_{PAC}}{CCF_{levelized}} = \frac{\sum_{t=1}^{N} \frac{PRC_t + INC_t + UIC_t}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{CCF_t}{(1+d)^{t-1}}}$$

9.1.6.2 TRC Test

	I	J	K	L	M	N	O
31		Cost	Market-Based				
32		Based	Minimum	Today	Alternate	Option	Maximum
49	TRC Test						
50	Net Benefits (All Participants or Units)	$6,350.03	$2,843.90	$6,251.20	$6,744.56	$3,702.81	$18,683.39
51	Levelized Cost (kW)	$519.6358	$519.6358	$519.6358	$519.6358	$519.6358	$519.6358
52	Levelized Cost (kWh)	$0.0771	$0.0745	$0.0771	$0.0771	$0.0771	$0.0795
53	Levelized Cost (CCF)	$0.0420	$0.0391	$0.0420	$0.0420	$0.0420	$0.0454
54							

Test Results | Loads & Bills | Financial Reports | Peak Coincid | Loadshapes

Ready Count: 2

TRC Test Additional Results

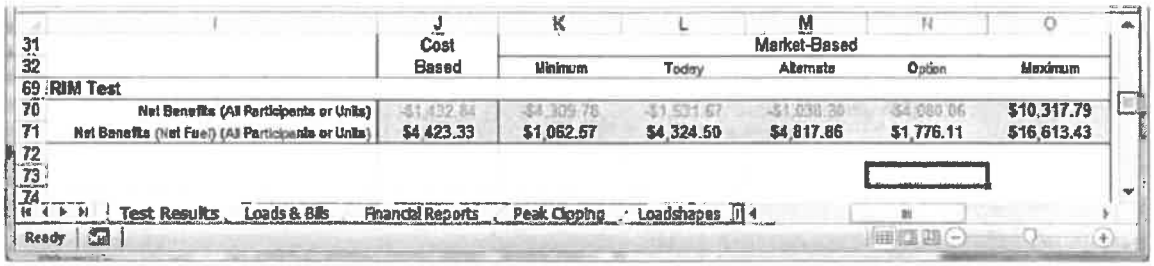
$$\text{Net Benefits (TRC)} = B_{TRC} - C_{TRC} = \left(\sum_{t=1}^{N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}\right) - \sum_{t=1}^{N} \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

$$\text{Levelized Cost (\$/kW)} = \frac{C_{TRC}}{kW_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{\max(CoinkW_t)}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/kWh)} = \frac{C_{TRC}}{kWh_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{kWh_t}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/CCF)} = \frac{C_{TRC}}{CCF_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{CCF_t}{(1+d)^{t-1}}}$$

9.1.6.3 RIM Test



	I	J	K	L	M	N	O
31		Cost	Market-Based				
32		Based	Minimum	Today	Alternate	Option	Maximum
69	RIM Test						
70	Net Benefits (All Participants or Units)	-$1,432.84	-$4,309.76	-$1,531.67	-$1,038.39	-$4,080.06	$10,317.79
71	Net Benefits (Net Fuel) (All Participants or Units)	$4,423.33	$1,062.57	$4,324.50	$4,817.86	$1,776.11	$16,613.43
72							
73							
74							

Test Results | Loads & Bills | Financial Reports | Peak Clipping | Loadshapes

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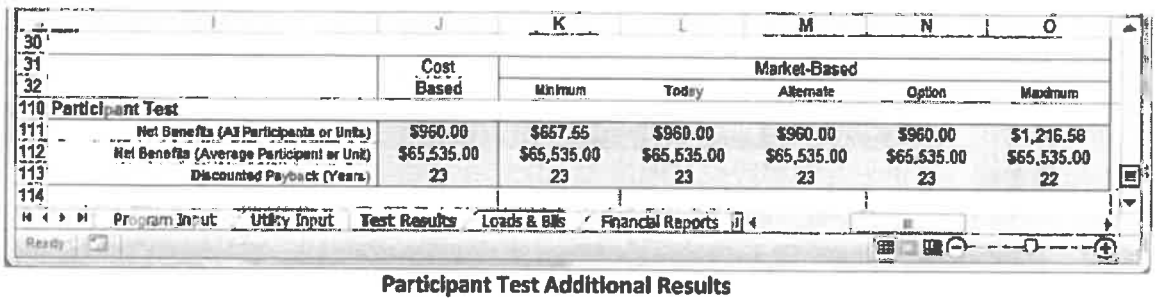
RIM Test Additional Results

$$\text{Net Benefits (RIM)} = B_{RIM} - C_{RIM} = \left(\sum_{t=1}^{N} \frac{UAC_t + RC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}}\right) - \left(\sum_{t=1}^{N} \frac{PRC_t + RL_t + UIC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{RL_{at}}{(1+d)^{t-1}}\right)$$

$$\text{Net Benefits (RIM net fuel)} = B_{RIMnet\ fuel} - C_{RIMnet\ fuel} = \left(\sum_{t=1}^{N} \frac{UAC_t + RG(net\ fuel)_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at}}{(1+d)^{t-1}}\right) - \left(\sum_{t=1}^{N} \frac{PRC_t + RL(net\ fuel)_t + UIC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{RL(net\ fuel)_{at}}{(1+d)^{t-1}}\right)$$

9.1.6.4 Participant Test



		Cost Based	Market-Based				
			Minimum	Today	Alternate	Option	Maximum
110	Participant Test						
111	Net Benefits (All Participants or Units)	$960.00	$657.55	$960.00	$960.00	$960.00	$1,216.58
112	Net Benefits (Average Participant or Unit)	$65,535.00	$65,535.00	$65,535.00	$65,535.00	$65,535.00	$65,535.00
113	Discounted Payback (Years)	23	23	23	23	23	22

Program Input | Utility Input | Test Results | Loads & Bills | Financial Reports

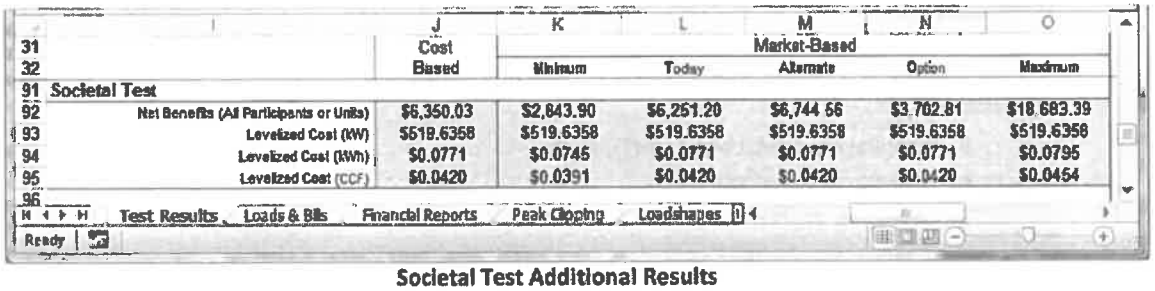
Participant Test Additional Results

$$\text{Net Benefits (Participant)} = B_{Part} - C_{Part} = \left(\sum_{t=1}^{N} \frac{BR_t + TC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{BR_{at} + PAC_{at}}{(1+d)^{t-1}}\right) - \sum_{t=1}^{N} \frac{PC_t + BI_t}{(1+d)^{t-1}}$$

$$\text{Net Benefits (Average Participants)} = B_{Avg\ Part} - C_{Avg\ Part} = \frac{\left(\sum_{t=1}^{N} \frac{BR_t + TC_t + INC_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{BR_{at} + PAC_{at}}{(1+d)^{t-1}}\right)}{\sum_{t=1}^{N} \#\ of\ participants} - \frac{\sum_{t=1}^{N} \frac{PC_t + BI_t}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \#\ of\ participants}$$

$$\text{Discounted Payback (Years)} = \frac{\sum_{t=1}^{N} \frac{PC_t}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{BR_t}{(1+d)^{t-1}}}$$

9.1.6.5 Societal Test



		J	K	L	M	N	O
31		Cost	Market-Based				
32		Based	Minimum	Today	Alternate	Option	Maximum
91	Societal Test						
92	Net Benefits (All Participants or Units)	$6,350.03	$2,843.90	$6,251.20	$6,744.66	$3,702.81	$18,683.39
93	Levelized Cost (kW)	$519.6358	$519.6358	$519.6358	$519.6358	$519.6358	$519.6358
94	Levelized Cost (kWh)	$0.0771	$0.0745	$0.0771	$0.0771	$0.0771	$0.0795
95	Levelized Cost (CCF)	$0.0420	$0.0391	$0.0420	$0.0420	$0.0420	$0.0454
96							

Test Results | Loads & Bills | Financial Reports | Peak Clipping | Loadshapes

Ready

Societal Test Additional Results

$$\text{Net Benefits (Societal)} = B_{Societal} - C_{Societal} = \left(\sum_{t=1}^{N} \frac{UAC_t + TC_t + NEB_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}\right) - \sum_{t=1}^{N} \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

$$\text{Levelized Cost (\$/kW)} = \frac{C_{Societal}}{kW_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t + NEB_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{\max(CoinkW_t)}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/kWh)} = \frac{C_{Societal}}{kWh_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t + NEB_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{kWh_t}{(1+d)^{t-1}}}$$

$$\text{Levelized Cost (\$/CCF)} = \frac{C_{Societal}}{CCF_{levelized}} = \frac{\sum_{t=1}^{N} \frac{UAC_t + TC_t + NEB_t}{(1+d)^{t-1}} + \sum_{t=1}^{N} \frac{UAC_{at} + PAC_{at}}{(1+d)^{t-1}}}{\sum_{t=1}^{N} \frac{CCF_t}{(1+d)^{t-1}}}$$

9.2 Loads & Bills Worksheet

The monthly loads and savings calculated by DSMore are reported in the Loads and Bills worksheet. There are three sections to this worksheet:

- Per Participant Loads and Usage
- Per Participant Bill
- Average Electric and Gas Prices by Month and Price Scenario

9.2.1 Per Participant Loads and Usage (Loads & Bills!A1:R18)

The Per Participant Loads and Usage section reports the monthly pre, post, and savings loads and percent savings for both electric and gas. The figure below shows this report. The maximum peak and total consumptions for the year are presented in the "Year" row (row 17). Savings with T&D losses from the Utility Input worksheet appear as the last row in the table.

Electric Peak Loads and Monthly Usage

- Pre kW Peak – the peak demand for each month from the hourly pre-load shape
- Post kW Peak – the peak demand for each month from the hourly post-load shape
- Billing Saved kW – the monthly peak demand savings (Pre kW Peak – Post kW) [8,9]
- Coincident Saved kW – the peak demand saving at the hour of the utility peak
- Min Non-Coincident Saved kW - the minimum demand savings for the load shape for each month
- Max Non-Coincident Saved kW - the maximum demand savings for the load shape for each month
- Pre kWh – the energy usage for each month from the hourly pre-load shape
- Post kWh - the energy usage for each month from the hourly post-load shape
- Saved kWh – the energy usage savings for each month (Pre kWh – Post kWh)

Gas Usage

- Pre CCF – the gas usage (CCF) for each month from the hourly pre-load shape
- Post CCF – the gas usage (CCF) for each month from the hourly post-load shape
- Saved CCF – the gas usage savings for each month (Pre CCF – Post CCF)

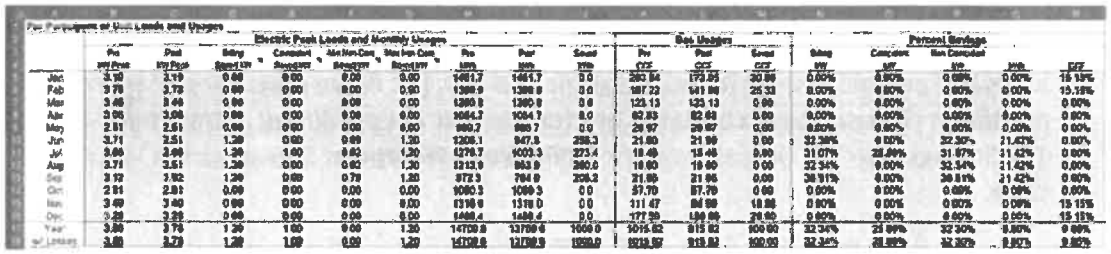
[8] Billing kW Example: if the pre-shape peak is 2kW at 6pm, and we apply savings of 1kW at that hour, then the post-shape kW is 1kW at 6pm. If the pre-shape kW at 5pm was 1.5kW though and no savings occurred at 5pm, the Billing Saved kW would be 0.5kW. This is because the peak kW was reduced from 2kW to 1.5kW, even though 1kW of savings occurred in the peak hour (the peak shifted hours).

[9] The "Saved kW" reports the kW reduction of the peak kW for each month. In mode 2, the saved kW may be less than the savings values entered in the Loadshapes worksheet. This occurs when the hours of savings entered in the Loadshapes worksheet do not cover the hour in which the peak kW occurs in any one of the 33 years that DSMore uses.

Percent Savings

- Billing kW - Saved kW/ Pre kW by month
- Coincident kW – Coincident Saved kW/ Pre kW by month
- Non-Coincident kW – Non-Coincident Saved kW/ Pre kW by month
- kWh – Saved kWh/Pre kWh by month
- CCF – Saved CCF/Pre CCF by month

In Mode 3 (Target Mode), if zeros were entered for certain months, or in Mode 1 (% Savings), if 1's were entered for savings, then there will be zeros in the savings rows for those months.



Per Participant Loads and Usage

For weather-sensitive measures, higher savings are expected for those months with more extreme weather. For example, January savings are likely to be higher than November savings, and August or July savings are expected to be higher than May savings or June savings.

9.2.2 Per Participant Bills

To confirm the accuracy of the rate structures and the DSM load impact savings, the Loads and Bills worksheet returns monthly bills for electric and gas, along with the respective loads. Where Mode 1 (% Savings) or Mode 3 (Targets) had monthly savings values set to zero, there will be zeros for bill savings for those months in this table. Also, there will be slightly more bill savings for more extreme weather months, on average. The total costs are summed up in the "Year" row.

	A	B	C	D	E	F	G
20	**Per Participant or Unit Bills**						
21		**Electric Bill**			**Gas Bill**		
22		Pre	Post	Saved	Pre	Post	Saved
23	Jan	$0.00	$0.00	$0.00	$138.58	$117.59	$20.99
24	Feb	$0.00	$0.00	$0.00	$107.67	$91.36	$16.31
25	Mar	$0.00	$0.00	$0.00	$75.07	$75.07	$0.00
26	Apr	$0.00	$0.00	$0.00	$35.54	$35.54	$0.00
27	May	$0.00	$0.00	$0.00	$16.17	$16.17	$0.00
28	Jun	$0.00	$0.00	$0.00	$11.60	$11.60	$0.00
29	Jul	$0.00	$0.00	$0.00	$9.77	$9.77	$0.00
30	Aug	$0.00	$0.00	$0.00	$10.37	$10.37	$0.00
31	Sep	$0.00	$0.00	$0.00	$11.69	$11.69	$0.00
32	Oct	$0.00	$0.00	$0.00	$32.53	$32.53	$0.00
33	Nov	$0.00	$0.00	$0.00	$67.48	$57.25	$10.22
34	Dec	$0.00	$0.00	$0.00	$116.98	$99.26	$17.72
35	Year	$0.00	$0.00	$0.00	$633.42	$568.18	$65.24

Per Participant Bill Report

9.2.3 Average Electric and Gas Prices by Month and Price Scenario

This report presents the monthly average electric and gas prices for each of the 21 price scenarios calculated by DSMore. The average annual price for each scenario is below each scenario in the row labeled "Avg Year". This report is for the user's reference only. DSMore uses hourly (8,760) prices for each of the scenarios.

	A	B	C	D	E	F	G	H	I
37	Average Electric and Gas Prices By Month and Price Scenario - Scaled By Year 1 Escalator								
38	1	Calculate Average Prices (1 = Yes)							
39	Electric ($/MWh)								
40		1	2	3	4	5	6	7	8
41	Jan	$21.13	$20.91	$22.11	$23.31	$24.51	$25.68	$26.91	$28.
42	Feb	$23.67	$19.72	$20.38	$21.04	$21.70	$22.38	$23.08	$23.
43	Mar	$20.38	$18.93	$19.53	$20.13	$20.72	$21.32	$21.92	$22.
44	Apr	$14.15	$19.15	$19.73	$20.31	$20.89	$21.46	$22.05	$22.
45	May	$11.32	$22.76	$23.45	$24.20	$24.94	$25.69	$26.45	$27.
46	Jun	$16.16	$28.82	$30.98	$33.12	$35.25	$37.39	$39.54	$41.
47	Jul	$22.47	$35.14	$40.86	$46.57	$52.26	$57.96	$63.67	$69.
48	Aug	$23.46	$34.34	$40.21	$46.08	$51.93	$57.77	$63.64	$69.
49	Sept	$13.37	$25.18	$27.14	$29.09	$31.03	$33.01	$34.98	$36.
50	Oct	$16.65	$20.84	$21.56	$22.25	$22.98	$23.70	$24.41	$25.
51	Nov	$18.59	$19.70	$20.47	$21.24	$22.00	$22.77	$23.54	$24.
52	Dec	$20.81	$21.12	$23.00	$24.89	$26.78	$28.67	$30.55	$32.
53	Avg Year	$18.51	$23.88	$25.78	$27.69	$29.58	$31.48	$33.39	$35.
54	Gas ($/CCF)								
55		1	2	3	4	5	6	7	8
56	Jan	$0.36	$0.42	$0.47	$0.53	$0.60	$0.65	$0.71	$0.
57	Feb	$0.34	$0.40	$0.45	$0.50	$0.56	$0.62	$0.67	$0.
58	Mar	$0.32	$0.38	$0.43	$0.48	$0.53	$0.58	$0.63	$0.
59	Apr	$0.30	$0.35	$0.39	$0.44	$0.50	$0.54	$0.59	$0.
60	May	$0.28	$0.33	$0.38	$0.42	$0.47	$0.52	$0.56	$0.
61	Jun	$0.28	$0.33	$0.37	$0.41	$0.46	$0.51	$0.55	$0.
62	Jul	$0.28	$0.33	$0.37	$0.41	$0.46	$0.51	$0.55	$0.
63	Aug	$0.28	$0.33	$0.37	$0.41	$0.46	$0.51	$0.55	$0.
64	Sept	$0.28	$0.33	$0.37	$0.42	$0.47	$0.51	$0.56	$0.
65	Oct	$0.30	$0.35	$0.39	$0.44	$0.49	$0.54	$0.59	$0.
66	Nov	$0.32	$0.37	$0.42	$0.47	$0.53	$0.58	$0.63	$0.
67	Dec	$0.35	$0.41	$0.46	$0.51	$0.58	$0.63	$0.69	$0.
68	Avg Year	$0.31	$0.36	$0.41	$0.45	$0.51	$0.56	$0.61	$0.
69									

Program Input | Utility Input | Test Results | Loads & Bills

Average Electric and Gas Prices by Month Report

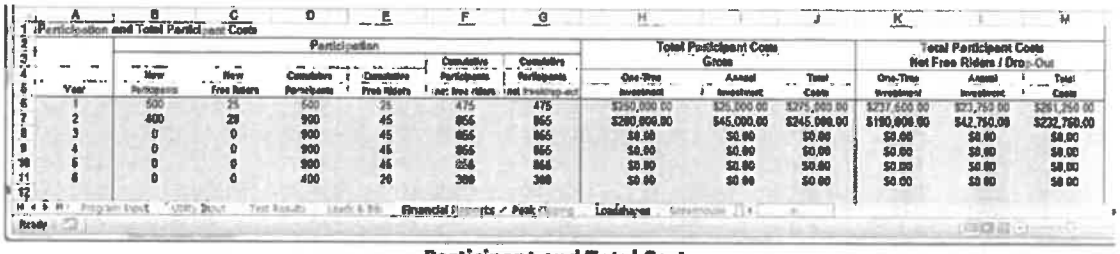
9.3 Financial Reports Worksheet

The reports on the Financial Reports worksheet present the year-by-year costs and benefits used for calculating the cost-effectiveness test results. There are six reports on this worksheet:

- Participation and Total Participant Costs
- Impacts and Savings
- Lost Revenue Dollars
- Utility Program Costs
- Market-Based Avoided Costs (Net Free Riders/Persistence)
- Cost-Based Avoided Costs (Net Free Riders/Persistence)

9.3.1 Participation and Total Participant Costs

The Participation and Total Participant Costs report details the total number of participants in the measure or program and the total measure costs paid by the participants (see the figure below).



Year	New Participants	New Free Riders	Cumulative Participants	Cumulative Free Riders	Cumulative Participants (net free riders)	Cumulative Participants (net free/persist)	Total Participant Costs Gross: One-Time Investment	Total Participant Costs Gross: Annual Investment	Total Participant Costs Gross: Total Costs	Total Participant Costs Net Free Riders / Drop-Out: One-Time Investment	Total Participant Costs Net Free Riders / Drop-Out: Annual Investment	Total Participant Costs Net Free Riders / Drop-Out: Total Costs
1	500	25	500	25	475	475	$250,000.00	$25,000.00	$275,000.00	$237,500.00	$21,750.00	$261,250.00
2	400	20	900	45	855	855	$200,000.00	$45,000.00	$245,000.00	$190,000.00	$42,750.00	$232,750.00
3	0	0	900	45	855	855	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
4	0	0	900	45	855	855	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5	0	0	900	45	855	855	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
6	0	0	400	20	380	380	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Participant and Total Cost

For each year of the program, the following values are presented:

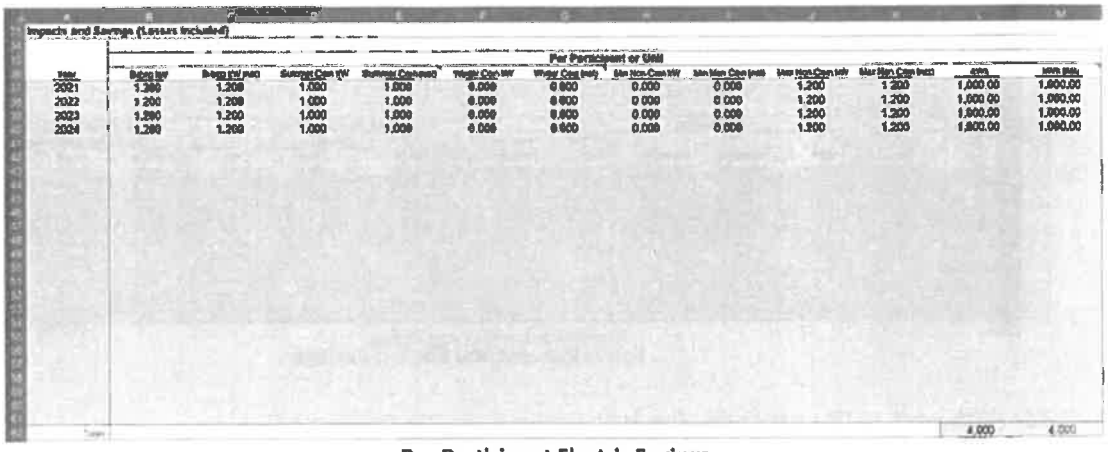
- *New Participants* – the number of new participants in that year
- *New Free Riders* – the number of new free riders in that year
- *Cumulative Participants* –the cumulative number of new participants through that year
- *Cumulative Free Riders* –the cumulative number of new free riders through that year
- *Cumulative Participants (net free riders)* –the cumulative number of new participants through that year net of the cumulative free riders
- *Cumulative Participants (net free/persist)* –the cumulative number of new participants through that year net of the cumulative free riders and dropouts
- *One-Time Investments* –the cumulative one-time investment made by the participants
- *Annual Investments* – recurring participant costs
- *One-Time Investments Net Free Riders / Drop Out* –the cumulative one-time investment made by the participants net of free riders and dropouts
- *Annual Investments Net Free Riders / Drop Out* – recurring participant costs net of free riders and dropouts

9.3.2 Impacts and Savings

The Impacts and Savings report presents the cumulative program electric and gas savings by participant and the yearly incremental savings. Impacts are provided with both losses

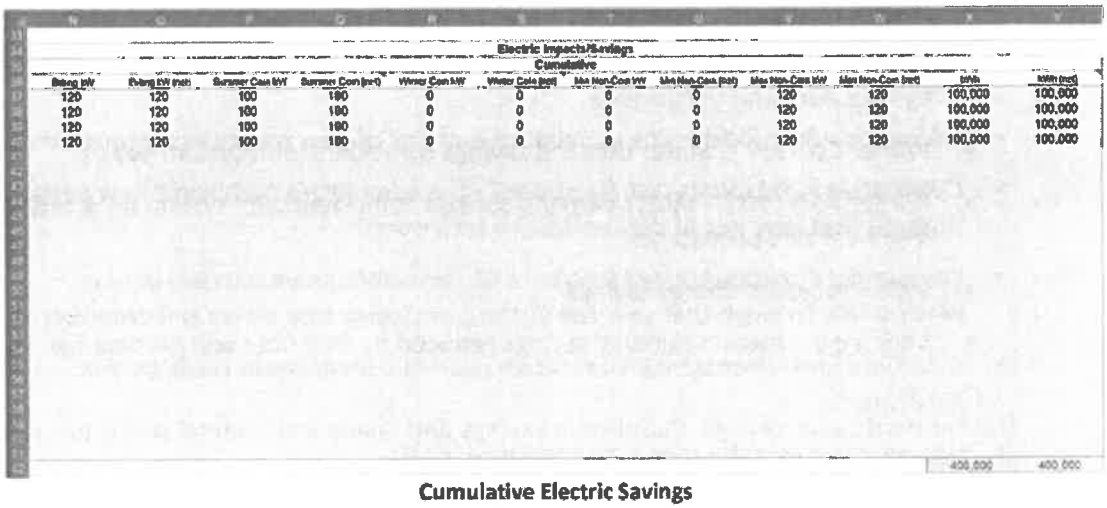
included and losses excluded, in separate adjacent sections. The figures below show the "Losses Included" results.

The Per Participant savings are the savings attributable to one participant.



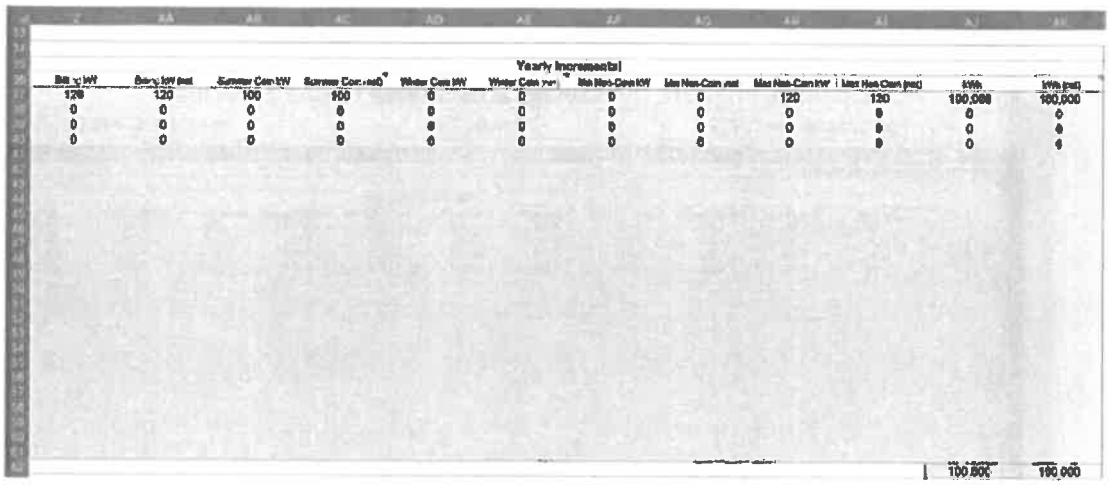
Per Participant Electric Savings

The Cumulative savings are the Per Participant savings times the number of participants.



Cumulative Electric Savings

The Yearly Incremental savings represent the difference in savings from year to year, which can be negative if savings are decreasing.



Yearly Incremental Electric Savings

- *kW* – measure demand (capacity) savings
- *kW (net)* – measure demand saving reduced by free rider and persistence
- *Summer Coin kW* – summer demand savings coincident with system peak
- *Summer Coin (net)* – summer demand savings coincident with system peak reduced by free rider and persistence
- *Winter Coin kW* – winter demand savings coincident with system peak
- *Winter Coin (net)* – winter demand savings coincident with system peak reduced by free rider and persistence
- *kWh* – measure energy savings
- *kWh (net)* – measure energy savings reduced by free rider and persistence

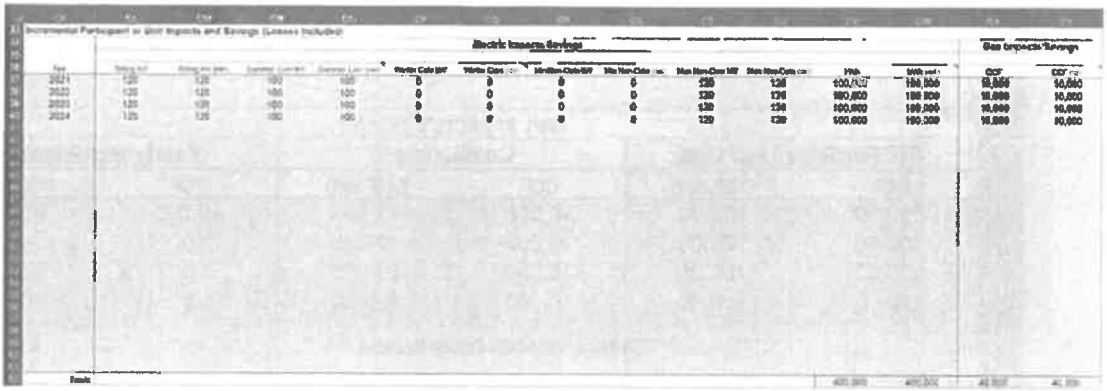
The Per Participant savings, Cumulative savings and Yearly Incremental saving are also presented for the Gas savings (see the figure below).

	AL	AM	AN	AO	AP	AQ
33						
34	Gas Impacts/Savings					
35	Per Participant or Unit		Cumulative		Yearly Incremental	
36	CCF	CCF (net)	CCF	CCF (net)	CCF	CCF (net)
37	100.00	100.00	10,000	10,000	10,000	10,000
38	100.00	100.00	10,000	10,000	0	0
39	100.00	100.00	10,000	10,000	0	0
40	100.00	100.00	10,000	10,000	0	0
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62	400	400	40,000	40,000	10,000	10,000

Participant Gas Savings

- *CCF* – measure gas savings
- *CCF (net)* – measure gas savings reduced by free rider and persistence

The Participant/Unit Incremental Savings for electric and gas are provided (see the figure below). These savings differ slightly from the Yearly Incremental Savings, as they represent the savings from new (incremental) participants/units in each year, as opposed to the change in savings from year to year. Generally, the two will match each other until participants/units begin to leave the measure/program. Assuming now new participants are joining then, the Yearly Incremental Savings will be negative (reduced savings), while the Participant/Unit Incremental Savings will just be zero (no new savings).

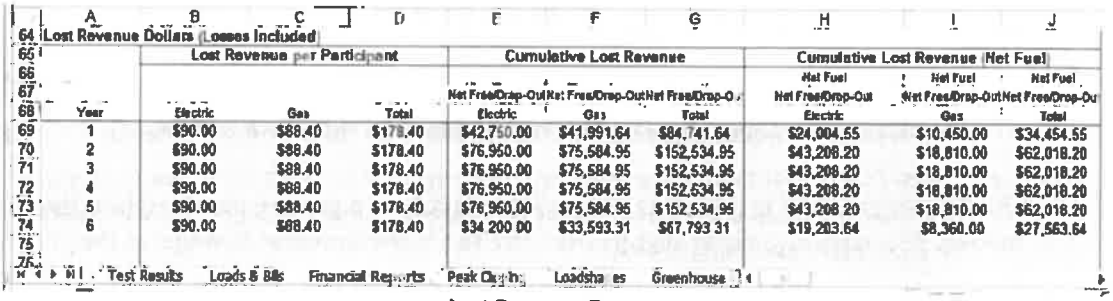


Participant/Unit Incremental Savings

Note: The impacts and savings at the meter, i.e., without losses, are presented on the Financial Reports sheet in cells AG33:BK62. These results use the same definitions as presented above without the addition of the T&D loss factors.

9.3.3 Lost Revenue Dollars

The Lost Revenue Dollars report presents the utility electric and gas lost revenues as a result of the program. Lost revenue is the difference between the pre- and post- bills multiplied by the net participants. The lost revenue is reported by participant, cumulative (for all participants) and cumulative net of any fuel adjustments. The reported Cumulative Lost Revenue and the Cumulative Lost Revenue (Net Fuel) are net of free riders and persistence.



Lost Revenue Dollars (Losses Included)

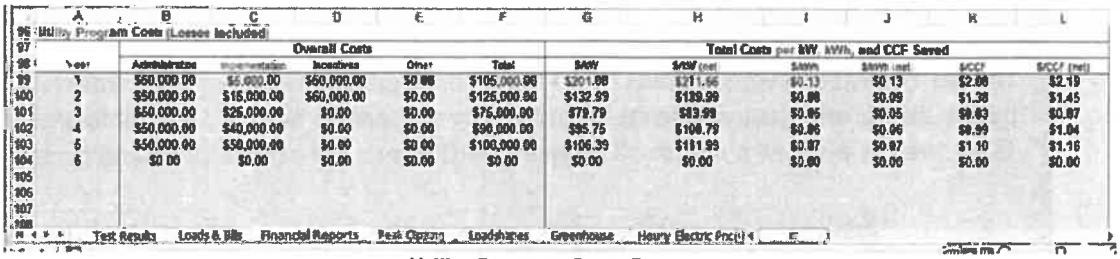
	Lost Revenue per Participant			Cumulative Lost Revenue			Cumulative Lost Revenue (Net Fuel)		
Year	Electric	Gas	Total	Net Free/Drop-Out Electric	Net Free/Drop-Out Gas	Net Free/Drop-Out Total	Net Fuel Net Free/Drop-Out Electric	Net Fuel Net Free/Drop-Out Gas	Net Fuel Net Free/Drop-Out Total
1	$90.00	$88.40	$178.40	$42,750.00	$41,991.64	$84,741.64	$24,004.55	$10,450.00	$34,454.55
2	$90.00	$88.40	$178.40	$76,950.00	$75,584.95	$152,534.95	$43,208.20	$18,810.00	$62,018.20
3	$90.00	$88.40	$178.40	$76,950.00	$75,584.95	$152,534.95	$43,208.20	$18,810.00	$62,018.20
4	$90.00	$88.40	$178.40	$76,950.00	$75,584.95	$152,534.95	$43,208.20	$18,810.00	$62,018.20
5	$90.00	$88.40	$178.40	$76,950.00	$75,584.95	$152,534.95	$43,208.20	$18,810.00	$62,018.20
6	$90.00	$88.40	$178.40	$34,200.00	$33,593.31	$67,793.31	$19,203.64	$8,360.00	$27,563.64

Test Results | Loads & Bills | Financial Reports | Peak Clipping | Loadshapes | Greenhouse

Lost Revenue Report

9.3.4 Utility Program Costs

The Utility Program Costs report presents the costs for the utility to implement and manage the program by year. The utility costs are presented as total costs and costs per energy unit (kW saved, kWh saved, and CCF saved). These costs are the values entered on the Program Input worksheet A41:B51.



	A	B	C	D	E	F	G	H	I	J	K	L
96	Utility Program Costs (Losses Included)											
97		Overall Costs					Total Costs per kW, kWh, and CCF Saved					
98	Year	Administration	Implementation	Incentives	Other	Total	$/kW	$/kW (net)	$/kWh	$/kWh (net)	$/CCF	$/CCF (net)
99	1	$50,000.00	$5,000.00	$60,000.00	$0.00	$105,000.00	$201.88	$211.66	$0.13	$0.13	$2.00	$2.19
100	2	$50,000.00	$15,000.00	$60,000.00	$0.00	$125,000.00	$132.99	$139.99	$0.08	$0.09	$1.38	$1.45
101	3	$50,000.00	$25,000.00	$0.00	$0.00	$75,000.00	$79.79	$83.99	$0.05	$0.05	$0.83	$0.87
102	4	$50,000.00	$40,000.00	$0.00	$0.00	$90,000.00	$95.75	$100.79	$0.06	$0.06	$0.99	$1.04
103	5	$50,000.00	$50,000.00	$0.00	$0.00	$100,000.00	$106.39	$111.99	$0.07	$0.07	$1.10	$1.16
104	6	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
105												
106												
107												
108												

Test Results | Loads & Bin | Financial Reports | Peak Opport | Loadshapes | Greenhouse | Hourly Electric Price | E

Utility Program Costs Report

9.3.4.1 Overall Costs

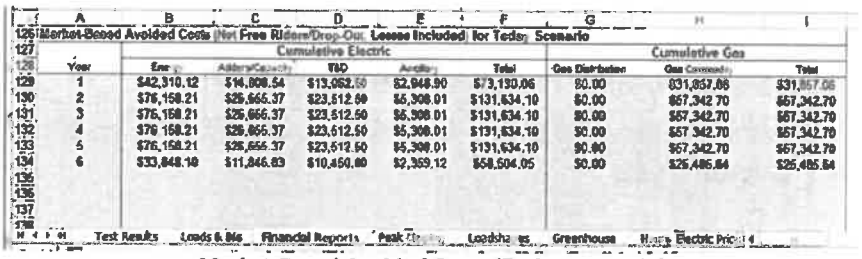
- *Administration* – the annual costs to administer the program, usually a fixed cost that does not vary with the number of participants (Program Input!D43:AB43)
- *Implementation* – the annual costs to implement the program, usually varies with the number of participants (Program Input!D44:AB44)
- *Incentives* – the annual costs of the incentive to participants, varies with the number of participants (Program Input!D45:AB45)
- *Other* – other program costs, these can be fixed costs or variable costs (Program Input!D46:AB46)
- *Total* – the sum of the administration, implementation, incentive, and other costs

9.3.4.2 Total Costs per kW, kWh and CC Saved

- *$/kW* – the Total Overall Utility Costs divided by the sum of the maximum Summer Coincident kW Saved and the maximum Winter Coincident kW Saved
- *$/kW (net)* – the Total Overall Utility Costs divided by the sum of the maximum Summer Coincident kW Saved and the maximum Winter Coincident kW Saved, net of free riders and persistence
- *$/kWh* – the Total Overall Utility Costs divided by the yearly kWh Saved
- *$/kWh (net)* – the Total Overall Utility Costs divided by the yearly kWh Saved, net of free riders and persistence
- *$/CCF* – the Total Overall Utility Costs divided by the yearly CCF Saved
- *$/CCF (net)* – the Total Overall Utility Costs divided by the yearly CCF Saved, net of free riders and persistence

9.3.5 Market-Based Avoided Costs (Net Free Riders/Persistence) for Today Scenario

The Market-Based Avoided Costs (Net Free Riders/Persistence) report presents the market-based electric and gas avoided costs for the Today Scenario by year (see the figure below). These are the avoided costs for all program participants net of free riders and persistence.



	A	B	C	D	E	F	G	H	I
125	Market-Based Avoided Costs (Net Free Riders/Drop-Out, Losses Included) for Today Scenario								
127		Cumulative Electric					Cumulative Gas		
128	Year	Ene	Adders/Capacity	T&D	Ancillary	Total	Gas Distribution	Gas Commodity	Total
129	1	$42,310.12	$14,808.54	$13,052.50	$2,948.90	$73,130.06	$0.00	$31,857.86	$31,857.86
130	2	$76,158.21	$26,666.37	$23,512.50	$5,308.01	$131,634.10	$0.00	$57,342.70	$57,342.70
131	3	$76,158.21	$26,666.37	$23,512.50	$5,308.01	$131,634.10	$0.00	$57,342.70	$57,342.70
132	4	$76,158.21	$26,666.37	$23,512.50	$5,308.01	$131,634.10	$0.00	$57,342.70	$57,342.70
133	5	$76,158.21	$26,666.37	$23,512.50	$5,308.01	$131,634.10	$0.00	$57,342.70	$57,342.70
134	6	$33,848.10	$11,846.83	$10,450.00	$2,359.12	$58,504.05	$0.00	$25,485.84	$25,485.84
135									
136									
137									
138									

Test Results | Loads & Bin | Financial Reports | Peak | Loadshapes | Greenhouse | Hours | Electric Price

Market-Based Avoided Costs (Today Scenario)

9.3.5.1 Cumulative Electric

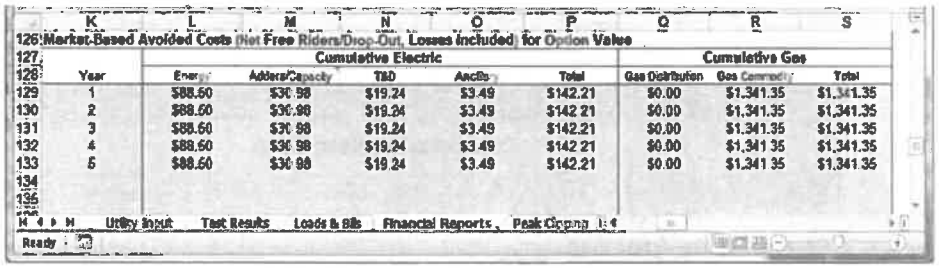
- *Energy + Adders* – the annual market-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual market-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual market-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.5.2 Cumulative Gas

- *Gas Distribution* – the annual market-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual market-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.6 Market-Based Avoided Costs (Net Free Riders/Persistence) for Option Value

The Market-Based Avoided Costs (Net Free Riders/Persistence) for Option Value report presents the market-based electric and gas avoided costs for the Option Value by year (see the figure below). These are the avoided costs for all program participants net of free riders and persistence.



	K	L	M	N	O	P	Q	R	S
126	Market-Based Avoided Costs (Net Free Riders/Drop-Out, Losses Included) for Option Value								
127		Cumulative Electric					Cumulative Gas		
128	Year	Energy	Adders/Capacity	T&D	Ancills	Total	Gas Distribution	Gas Commodity	Total
129	1	$88.60	$30.98	$19.24	$3.49	$142.21	$0.00	$1,341.35	$1,341.35
130	2	$88.60	$30.98	$19.24	$3.49	$142.21	$0.00	$1,341.35	$1,341.35
131	3	$88.60	$30.98	$19.24	$3.49	$142.21	$0.00	$1,341.35	$1,341.35
132	4	$88.60	$30.98	$19.24	$3.49	$142.21	$0.00	$1,341.35	$1,341.35
133	5	$88.60	$30.98	$19.24	$3.49	$142.21	$0.00	$1,341.35	$1,341.35
134									
135									

Utility Input | Test Results | Loads & Bills | Financial Reports | Peak Clipping

Ready

Market-Based Avoided Costs Option Value

9.3.6.1 Cumulative Electric

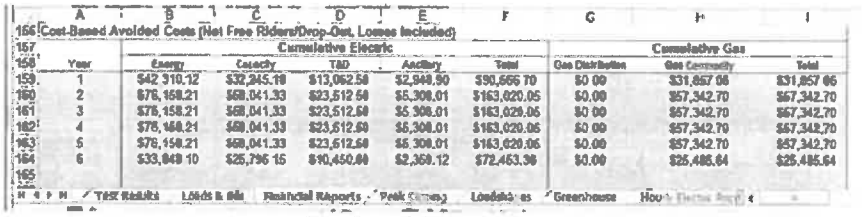
- *Energy + Adders* – the annual market-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual market-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual market-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.6.2 Cumulative Gas

- *Gas Distribution* – the annual market-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual market-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.7 Cost-Based Avoided Costs (Net Free Riders/Persistence)

The Cost-Based Avoided Costs (Net Free Riders/Persistence) report presents the cost-based electric and gas avoided costs by year (see the figure below). These are the avoided costs for all program participants net of free riders and persistence.



	A	B	C	D	E	F	G	H	I
156	Cost-Based Avoided Costs (Net Free Riders/Drop-Out, Losses Included)								
157		Cumulative Electric					Cumulative Gas		
158	Year	Energy	Capacity	T&D	Ancillary	Total	Gas Distribution	Gas Commodity	Total
159	1	$42,310.12	$32,245.19	$13,062.58	$2,948.90	$90,566.79	$0.00	$31,857.06	$31,857.06
160	2	$76,158.21	$68,041.33	$23,512.58	$5,308.01	$163,020.05	$0.00	$57,342.70	$57,342.70
161	3	$76,158.21	$68,041.33	$23,512.58	$5,308.01	$163,020.05	$0.00	$57,342.70	$57,342.70
162	4	$76,158.21	$68,041.33	$23,512.58	$5,308.01	$163,020.05	$0.00	$57,342.70	$57,342.70
163	5	$76,158.21	$68,041.33	$23,512.58	$5,308.01	$163,020.05	$0.00	$57,342.70	$57,342.70
164	6	$33,849.10	$25,796.15	$10,450.03	$2,359.12	$72,453.39	$0.00	$25,485.64	$25,485.64
165									

Cost-Based Avoided Costs

9.3.7.1 Cumulative Electric

- *Energy* – the annual cost-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *Capacity* – the annual cost-based electric capacity avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual cost-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual cost-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total cost-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.7.2 Cumulative Gas

- *Gas Distribution* – the annual cost-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual cost-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total cost-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.3.8 Present Value of Cash Flows

At the bottom of each cash flow section are rows that total the annual cash flows and calculate the present values of the annual cash flows. The present value calculations are included so that the user can quickly verify that the present values of the cash flows reported on the Test Results worksheet are correct. The figure below shows an example of the total and present value calculations for the Market-Based Avoided Costs.

NOTE: The present values in the Financial Report sheet are calculated using the Utility Cost Test discount

	A	B	C	D	E	F	G	H	I
126	Market-Based Avoided Costs (Net Free Riders/Drop Out, Losses Included) for Today Scenario								
127		Cumulative Electric					Cumulative Gas		
128	Year	Energy	Adders/Capacity	T&D	Ancillary	Total	Gas Distribution	Gas Commodity	Total
129	1	$420.76	$0.00	$204.32	$0.00	$625.08	$0.00	$0.00	$0.00
130	2	$841.53	$0.00	$408.64	$0.00	$1,250.17	$0.00	$0.00	$0.00
131	3	$1,262.29	$0.00	$612.96	$0.00	$1,875.25	$0.00	$0.00	$0.00
132	4	$1,660.91	$0.00	$806.53	$0.00	$2,467.43	$0.00	$0.00	$0.00
133	5	$2,059.52	$0.00	$1,000.09	$0.00	$3,059.62	$0.00	$0.00	$0.00
134	6	$2,458.14	$0.00	$1,193.66	$0.00	$3,651.80	$0.00	$0.00	$0.00
135	7	$2,480.29	$0.00	$1,204.41	$0.00	$3,684.70	$0.00	$0.00	$0.00
136	8	$2,502.43	$0.00	$1,215.17	$0.00	$3,717.60	$0.00	$0.00	$0.00
137	9	$2,524.58	$0.00	$1,225.92	$0.00	$3,750.50	$0.00	$0.00	$0.00
148	20	$2,657.45	$0.00	$1,290.44	$0.00	$3,947.89	$0.00	$0.00	$0.00
149	21	$2,214.54	$0.00	$1,075.37	$0.00	$3,289.91	$0.00	$0.00	$0.00
150	22	$1,771.63	$0.00	$860.30	$0.00	$2,631.93	$0.00	$0.00	$0.00
151	23	$1,328.73	$0.00	$645.22	$0.00	$1,973.95	$0.00	$0.00	$0.00
152	24	$885.82	$0.00	$430.15	$0.00	$1,315.96	$0.00	$0.00	$0.00
153	25	$442.91	$0.00	$215.07	$0.00	$657.98	$0.00	$0.00	$0.00
154	Totals	$1.00	$420.76	$0.00	$204.32	$0.00	$625.08	$0.00	$0.00
155	Present Values	$51,953.16	$0.00	$25,228.16	$0.00	$77,181.32	$0.00	$0.00	$0.00

Financial Reports | Peak Clipping | Loadshapes | AVERT | Hourly Electric Prices

Present Value Calculations

9.4 Peak Clipping Worksheet

The Peak Clipping worksheet provides several ways of viewing the impacts and financial values of interruptible programs. The results are for the curtailment trigger and curtailment method selected under Mode 4 on the Program Input worksheet. Each section of the Peak Clipping Worksheet is described below.

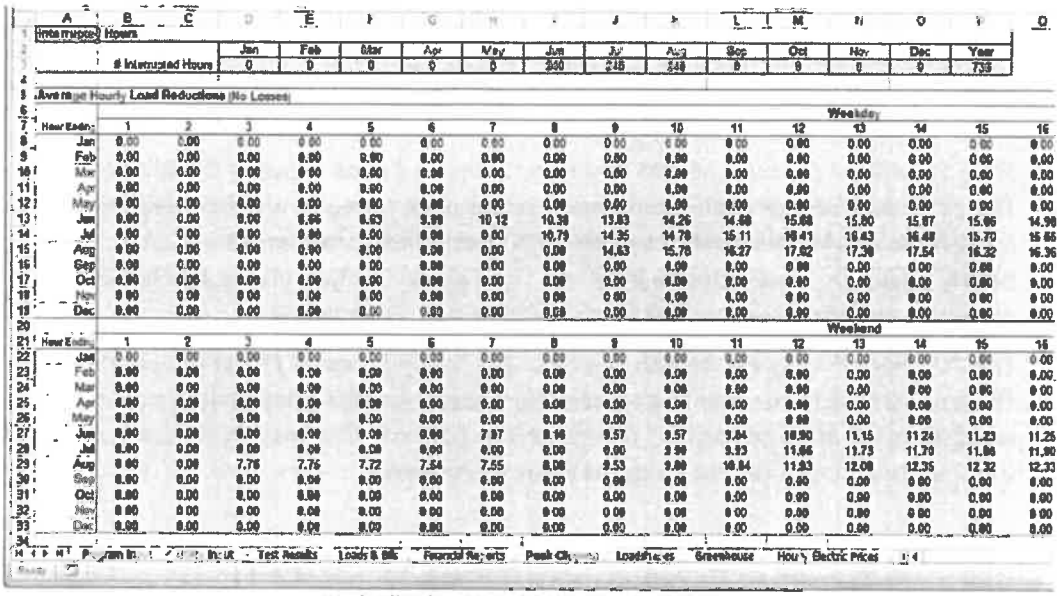
9.4.1 Interrupted Hours ('Peak Clipping'!D3:P3)

This section presents the number of hours that were interrupted, based on the curtailment trigger and the monthly values entered by the user.

9.4.2 Average Hourly Load Reduction ('Peak Clipping'!B8:Y33)

This section presents the average weekly and weekend load reductions by month and by hour. These load impacts only reflect interrupted hours and not all hours for that interval. For example. the 4 PM impact for weekdays in June only includes the 4 PM hours that were

interrupted and not all 4 PM hours. The figure below presents the Peak Clipping Monthly Impact Summary.



Interruptible Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
# Interrupted Hours	0	0	0	0	0	260	248	248	0	0	0	0	736

Average Hourly Load Reductions (No Losses)

Weekday

Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.00	0.00	0.00	6.66	8.63	9.99	10.12	10.38	13.83	14.26	14.88	15.68	15.80	15.87	15.86	14.98
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.79	14.35	14.78	15.11	16.41	16.43	16.48	15.70	15.65
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.63	15.78	16.27	17.02	17.38	17.54	16.32	16.36
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Weekend

Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.00	0.00	0.00	0.00	0.00	0.00	7.97	8.16	9.57	9.57	9.84	10.90	11.15	11.24	11.23	11.25
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.99	9.83	11.66	11.73	11.79	11.86	11.90
Aug	0.00	0.00	7.76	7.76	7.72	7.54	7.55	8.08	9.53	9.80	10.84	11.93	12.08	12.35	12.32	12.33
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Peak Clipping Monthly Impact Summary

9.4.3 Top 100 Hour Prices for Each Price Scenario ($/MWh Averaged Across All Weather Years) ('Peak Clipping'!B37:V136)

The hourly prices for the Top 100 hours for all market price scenarios are provided for review and inspection. This section can be used to fine tune program valuation to a specific set of hourly prices, or to interpolate between two sets of DSMore prices, by choosing which scenarios are most appropriate from inspection of these prices. The top 100 prices reflect the distribution tails rather than annual averages. But they also can be called "weather normal maximums" in that the price reported in DSMore for the highest Top Hour price in each of the 21 columns is the average of the 30+ years of the top price in each year. In addition, the monthly peak and off peak volatilities are provided for each of the market price scenarios.

By design, the GARCH modeling and estimation process (see the Technical Appendix for more detail), and the resulting parameters derived from specific traded hubs, are applied to all 20 market price scenarios within a hub, for consistency across changes in price levels. However, the user may wish to reconstruct the market prices to depict changing market price volatilities with increasing average market prices from information provided by the traders or system operators from year to year. If so, Integral Analytics will need to work with the user to create a custom series of market prices that exhibit the user's company's expectations of how volatilities should increase with price. However, if the price volatilities are not changing (i.e., top prices and average prices are about the same), then the user can

simply insert an updated Scenario column number in the Utility input worksheet, to reflect an increase in prices, or costs, without changing anything inside DSMore. This is one reason why DSMore leverages 20 different forward curves. It means that the users do not have to rerun analyses if market prices increase, or change. The user simply needs to view the results from a different column of market prices, so they can just update the Scenario input cost curve by using the scenario number from a different column.

Price Volatilities for Each Month and Price Scenario ('Peak Clipping'!B140:V164)
The price volatiles for each month and market price scenario are provided for review and inspection. Again, this section can be used to fine tune program valuation to a specific set of hourly prices, or to interpolate between two sets of DSMore prices, by choosing which scenarios are most appropriate from inspection of these prices.

Top 100 Hour Counts Per Month and Hour for Today Scenario ('Peak Clipping'!B168:Y179)
The top 100 hours per month and hour for today's market price scenario averaged across all weather years are provided for review and inspection. This section can be used to fine tune the Top Hours input on the Program Input worksheet.

9.5 Loadshapes Worksheet (Loadshapes!A1)

The Loadshapes worksheet is unique in DSMore since it provides both output data from the application and allows the user to create custom hourly savings load shapes. This section describes the output functionality of the Loadshapes worksheet in detail. The inputs on the Loadshapes worksheet apply to Mode 2 and are described in Section 5.1.1.1.

9.5.1 Reviewing Load Shapes

The Loadshapes worksheet allows the user to review the pre-load shape, post-load shape and the savings load shape, both numerically and graphically. It is important to note that these approximate load shapes are only presented for the user's review and are not the hourly values that are used in the DSMore calculations.

It would take up too much space in the DSMore file to present the load shapes for each day, so the load shapes are grouped by month, weekday and weekend and the averages are presented. As a result, the total kWh values approximated in the Loadshapes worksheet may not be exactly the same as that which appears in the Loads and Bills worksheet. The Loads and Bills annual and monthly kWh values are exact vs. the approximated ones in the Loadshapes worksheet.

The load shapes are grouped by season, month, weekday and weekend. In addition to these three sets of load shapes, the standard deviation of the pre-load shape is also provided. The location of these load shapes is described below.

9.5.1.1 Pre-Load shape Locations

- **Pre-Load shapes Spring/Summer Weekday** — **Loadshapes!A4:Z9**
- **Pre-Load shapes Spring/Summer Weekend** — **Loadshapes!AA4:AY9**
- **Pre-Load shapes Fall/Winter Weekday** — **Loadshapes!A10:Z15**
- **Pre-Load shapes Fall/Winter Weekend** — **Loadshapes!AA10:AY15**

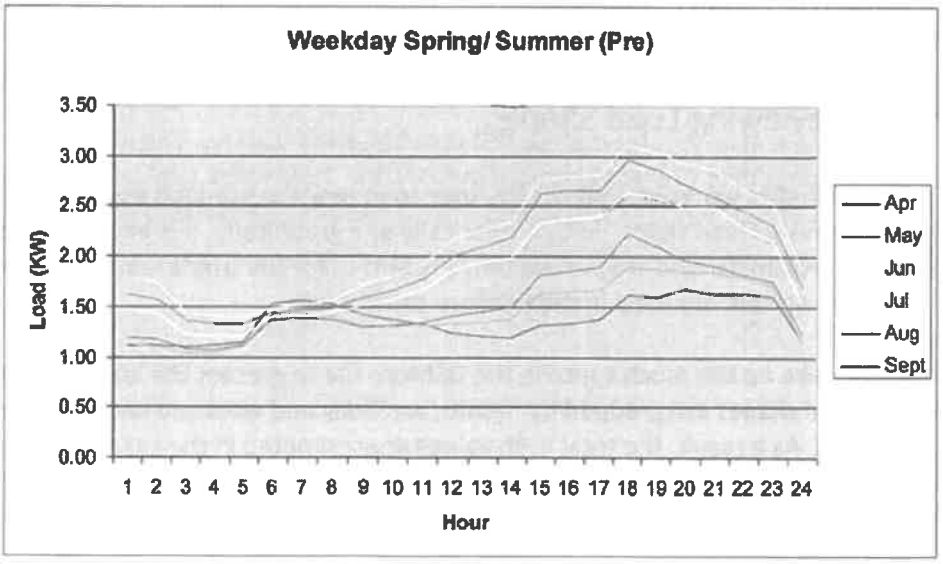
9.5.1.2 Post-Load shape Locations

- **Post-Load shapes Spring/Summer Weekday** — **Loadshapes!A16:Z21**
- **Post-Load shapes Spring/Summer Weekend** — **Loadshapes!AA16:AY21**
- **Post-Load shapes Fall/Winter Weekday** — **Loadshapes!A22:Z27**
- **Post-Load shapes Fall/Winter Weekend** — **Loadshapes!AA22:AY27**

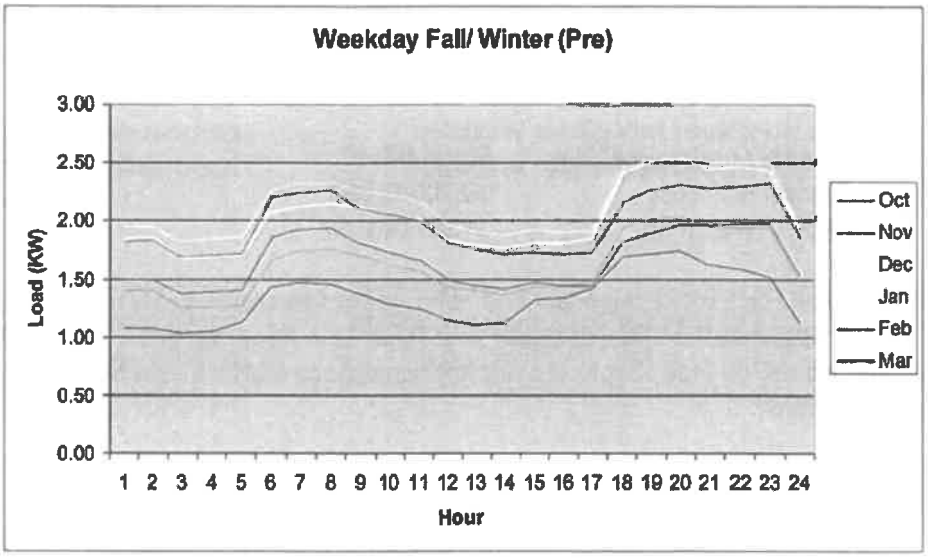
9.5.1.3 Saved-Load shape Locations

- **Save-Load shapes Spring/Summer Weekday** — **Loadshapes!A28:Z33**
- **Save-Load shapes Spring/Summer Weekend** — **Loadshapes!AA28:AY33**
- **Save-Load shapes Fall/Winter Weekday** — **Loadshapes!A34:Z39**
- **Save-Load shapes Fall/Winter Weekend** — **Loadshapes!AA34:AY39**

Each of the pre, post, and saved load shapes is graphed within DSMore. The load shape graphs are found directly below the numerical load shapes starting in Loadshapes!A44. The figures below show examples of two of the load shape graphs.



Weekday Spring/Summer Load Shapes



Weekday Fall/Winter Load Shapes

Creating custom savings load shapes is covered in the Mode 2 section of Section 5.1.1.1.

9.6 AVERT Worksheet

AVoided Emissions and geneRation Tool (AVERT) is a free tool developed by the U.S. Environmental Protection Agency (EPA) with a simple user interface designed to meet the needs of state air quality planners and other interested stakeholders. Non-experts can use AVERT to evaluate county-level emissions displaced at electric power plants by energy efficiency (EE) and renewable energy (RE) policies and programs. The AVERT tool can use the 8670 savings load shapes generated by DSMore. To simplify the use of the AVERT tool for DSMore users, the AVERT calculation engine has been added to DSMore on the "AVERT" worksheet.

9.6.1 Hourly Savings Output (Loadshapes!A307:DM9093)

The hourly savings results can also be found on the Loadshapes worksheet.

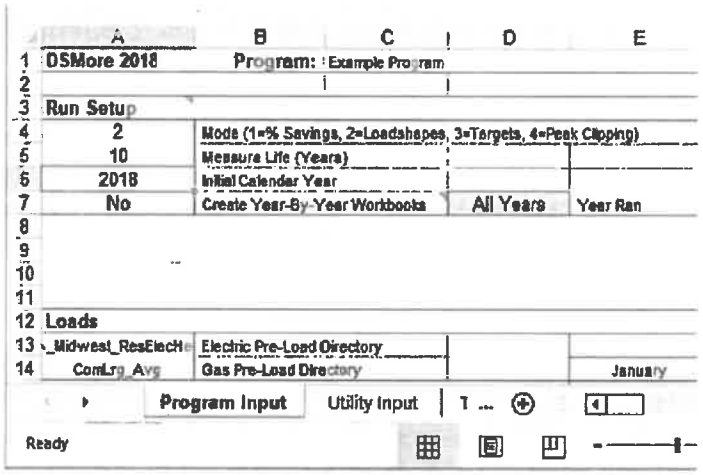
The savings per participant including line losses for each hour of the year are found in cells A308:A9093.

The cumulative net savings for each hour of the year for each year of the program are presented in cells L308:AJ9093.

To help understand this large quantity of yearly savings data, we have also grouped the cumulative net hourly savings by day type by month: peak day, typical weekday, and typical weekend. These day types can be found in:

Monthly hourly Peak Day	AL308:BK597
Typical Weekday	BM308:CL597
Typical Weekend	CN308:DM597

DSMore can track exact calendars and holidays for forecasted years in these 8760 results. The User specifies the initial calendar year (Year 1) in 'Program Input'A6 (see the figure below). Non-8760 load shapes are not impacted since DSMore uses historical weather years in calculations.



Starting Calendar Year

Custom Holidays: The user can customize the list of holidays used in DSMore. The file "Holiday.xml" is in the DSMore installation folder and can be modified to match the users' list of holidays. The user updates the holidays in DSMore by clicking on the options button in the DSMore menu and then clicks on "Update DSMore holidays". DSMore will look for the "Holidays.xml" file and import the updated list of holidays. The next time DSMore runs, it will use the updated list of holidays. This update only needs to be performed when the "Holidays.xml" is modified.

9.6.2 Overview

The following is an overview of the AVERT tool from EPA's AVERT User's Manual. The complete AVERT documentation is available at:
http://epa.gov/statelocalclimate/resources/avert/.

The EPA recognizes that many states are adopting, implementing, and expanding cost-effective energy efficiency (EE) and renewable energy (RE) policies and programs. States are investing in EE/RE policies and programs to achieve benefits including lowered customer costs, improved electric supply reliability, and diversified energy supply portfolios. EE/RE can also reduce pollution of criteria air pollutants and greenhouse gases, especially on high-electricity-demand days that typically coincide with poor air quality.

AVERT works by estimating the "displaced generation" from EE/RE programs—that is, the generation at fossil fuel power plants that will not take place because EE or RE is meeting consumers' energy needs. The quantification of EE/RE programs' "displaced emissions"—or emissions that would have been created by the generation that has been displaced—is unlike direct measurement of emissions at an electric generator's smokestack from stack controls. Emissions reductions from stack controls can be measured directly; emissions reductions due to demand reductions are indirect or derived from model scenarios.

Electricity from numerous electric generators is dispatched onto a "grid" that immediately responds to changes in demand for power from residential, commercial, and industrial customers throughout a broad geographic area. Reducing consumption through EE/RE programs makes some fossil fuel generation unnecessary. Electric generating units (EGUs) that are not required to generate electricity are not "dispatched" as often, so some of their emissions are avoided.

Specific EE/RE programs and technologies have hourly load profiles (hour-by-hour schedules of expected reductions in electricity demand or increases in electricity production for a year). Understanding the hour-by-hour relationship between specific EE/RE programs and the dispatch of fossil fuel EGUs (that is, which power plants are called on to generate electricity in a given hour) is essential to the estimation of the magnitude and location of emissions reductions from EE/RE.

EPA has developed a credible, free, user-friendly, and accessible tool to estimate emissions impacts of EE/RE policies and programs so that air quality planners can incorporate those impacts into their NAAQS SIPs. The AVoided Emissions and geneRation Tool (AVERT) quantifies the displaced sulfur dioxide (SO2), nitrogen oxides (NOx), and carbon dioxide (CO2) emissions of EE/RE policies and programs within the continental United States (Alaska, Hawaii, and U.S. Territories are not modeled). AVERT captures the actual historical behavior of EGUs' operation on an hourly basis to predict how EGUs will operate with additional EE/RE implemented.

9.6.3 Limitations

As detailed in the AVERT User's Manual, there are several key limitations to the use of AVERT displaced emissions results.[10]

[10] AVoided Emissions and geneRation Tool (AVERT) User Manual Version 1.0, February 2014, p. 11-13.

- **Snapshot analysis:** AVERT provides a representation of the dynamics of electricity dispatch (i.e., which EGUs are put into operation in which hours) in a historical base year. However, it does not model changes in dispatch due to transmission resources, fuel prices, emissions allowances, demand for electricity, or the variable running cost of individual EGUs. The use of AVERT to estimate forward-looking dispatch decisions is made more difficult when there are changes to the electrical grid (e.g., new transmission resources, EGU retirements, pollution control retrofits, or new EGUs), commodity prices (such as fuel or emissions allowances), or operational restrictions (e.g., "reliability must run" designations, curtailment due to new emissions caps). AVERT characterizes EGU retirements, pollution control retrofits, and new EGUs in its Future Year Scenario Template, but the scenarios created are only as good as the user's predictions of future conditions.

- **No explicit ramping or cycling:** AVERT does not model changes in ramping (periods when EGUs are changing to a new generation level) and cycling (fluctuating generation levels) behavior resulting from EE/RE programs, retirements, environmental controls, or new EGUs. AVERT does not capture the changes in the frequency of ramping and cycling of fossil-fuel EGUs that can result from variability in wind- and sun-powered generation. In addition, it does not capture the ability of slow- or fast-cycling plants to respond to hour-to-hour changes in demand.

- **Average outcome:** AVERT generates an average outcome for each EGU, rather than a specific and precise trajectory. The default Regional Data Files produce generation and emissions levels that are averaged across 5,000 hypothetical scenarios of a recent past year. These levels are the statistically expected outcome and should not be mistaken for an assertion of what did happen in a past year or what will happen in a future year.

- **Limited resolution for generation:** AVERT estimates regional displaced emissions. To do so, it predicts the most likely generation levels for individual EGUs given a particular regional fossil-fuel load level and the most likely emissions rates for individual EGUs given a particular generation level. Results at the individual EGU level (and for counties containing small numbers of EGUs) have very limited "resolution"; the accuracy of the results is limited at small spatial and temporal scales.

- **Limited resolution for small EE/RE programs:** Due to the limited resolution of generation, when focusing on smaller-scale EE/RE programs, AVERT may return a higher level of "noise" in the displaced emissions results—that is, a greater divergence between desired reductions in generation and modeled reductions in generation. Small changes may be swamped by random effects, such as historical non-economic forced outages and weather events, artifacts in the data, or even random perturbations in the Monte Carlo analysis. Users should exercise caution

when reviewing very-small-scale projects. There is no hard limit on the smallest project that can or should be reviewed in AVERT, but results for EE/RE programs under several hundred MW in capacity should be reviewed carefully.

- **Limited ability to capture dispatch implications of very large EE/RE programs:** AVERT is designed to review the impact of marginal changes in load requirements. Very large-scale energy efficiency and renewable energy programs may fundamentally change the way in which dispatchers operate a system. In particular, there is little precedent in the United States for understanding how high penetrations of variable renewable resources (such as wind and solar) impact other EGUs in a system. In some cases, very high penetrations of these resources may result in patterns that are not often observed in the historical dataset, such as the curtailment of slower-cycling coal plants, or an increase in the dispatch of fast-cycling peaking plants to smooth irregularities.

- **Precision of results:** AVERT reports results rounded to the nearest hundred units (i.e., megawatt-hours [MWh], pounds [lbs.] of SO2 and NOx, or tons of CO2). In general terms, users should consider the number of significant figures in their specified MW load reduction and limit their use of AVERT results to that number of significant figures.

- **Non-communicating regions:** AVERT models one region at a time, assuming that each region generates sufficient electricity to meet its own requirements; imports and exports of electricity between regions are assumed to stay constant with changing load requirements). Similarly, displaced emissions are restricted to the confines of the AVERT region selected for the analysis. The basis of this assumption is that analyses on smaller- sized regions would risk missing important interdependencies between EGUs across larger, well-integrated regions. Using yet larger regions than those in AVERT, however, would spread the influence of load reductions too widely, making it difficult to ascribe load reductions to particular EGUs.

- **Unconstrained transmission:** AVERT looks at the dynamics of each region as a whole, regardless of transmission constraints. The model represents how the regional electricity system actually operated in the base year given the existing transmission infrastructure but is completely insensitive to the physical location within a region of new EE/RE programs, as well as to the location within a region of retirements, environmental retrofits, and new EGUs modeled in the Future Year Scenario Template. In contrast, actual electricity dispatch decisions may be quite sensitive to the specific locations of resources, including (but not limited to) whether renewable resources are located close to consumers (at "load center") or in sparsely populated areas.

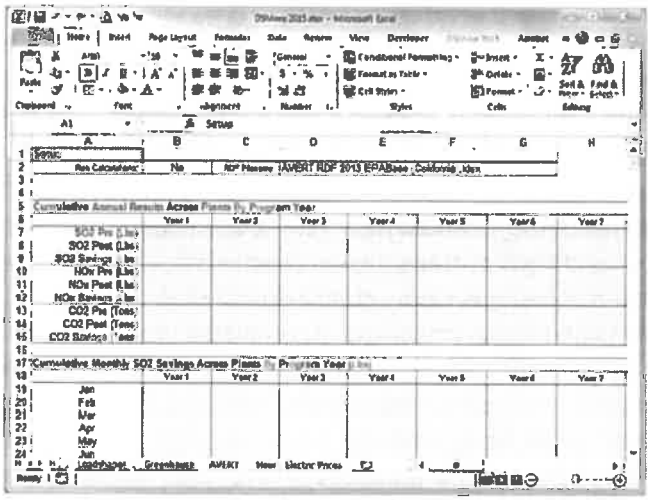
- **Limited capture of individual EGU dynamics:** Fossil-fuel EGUs, especially those using steam cycles, tend to operate at higher efficiencies and with lower emissions rates while in steady-state operation at or near their maximum output (although NOx emissions in particular may be exacerbated by high-output operations). The AVERT approach does account for emissions rates appropriate to different levels of generation (which may be associated with periods of fast-ramping or cycling by fossil-fuel EGUs), but does not account for inefficiencies that may be associated with rapid cycling.

- **Location non-specificity:** AVERT does not differentiate the location of EE/RE programs within the bounds of large, multi-state regions. Therefore EE/RE at the center or edges of a region will have the same outcome in AVERT. To the extent that DSMore reviews DSM costs and benefits at a location-specific basis, this information may be inconsistent with AVERT's regional nature.

- **Limited capture of individual EGU dynamics:** AVERT, at its core, does review unit specific reductions, but EPA does not recommend evaluating the outcome of an analysis at a unit-specific level.

9.6.4 Use of AVERT Module

To speed up the DSMore calculations, by default the AVERT is turned off. To use the AVERT module, set the value of 'AVERT'!B2 = "Yes" and enter the data file name in 'AVERT'!D2. The figure below provides a screenshot of the AVERT worksheet. The descriptions of each region are provided in the next section.



AVERT worksheet Screenshot

The AVERT module will use the 8760 savings load shape already calculated by DSMore to compute the emission reductions.

The AVERT module presents emission calculations (pre, post, and savings) for SO_2, NO_x, and CO_2 over the life of the program. However, the AVERT emission rates are only valid for the first 5 years of the program. The module also shows the monthly emissions reductions by year.

9.6.5 AVERT Regions

Because customers' electricity demand is met jointly by generation resources throughout a region, emissions displacements from EE/RE programs take place region-wide. All AVERT analysis, therefore, is conducted at a regional level. A map of these regions is shown in the figure below.

Map of AVERT Regions[11]

Twenty-eight states have borders entirely within a single region; twenty states are split among two or more regions. The table below describes each region in detail.[12] For a more complete discussion of regional boundaries, see Appendix B of the AVERT User's Manual.

[11] Ibid, p. 14.
[12] Ibid, p. 15.

SDE Region	Abbreviation	Full States	Partial States
California	CA		California, except for southeast and extreme north
Great Lake / Mid-Atlantic	EMW	Delaware, Indiana, Pennsylvania, New Jersey, Ohio, West Virginia, Washington DC	Greater Chicago and Quad Cities, Illinois; eastern Kentucky; all of lower peninsula and parts of upper peninsula, Michigan; greater Milwaukee and Green Bay, Wisconsin; western Virginia
Lower Midwest	SC	Kansas, Oklahoma	Western Arkansas; northwest Louisiana; eastern New Mexico; Texas panhandle and northeast Texas
Northeast	NE	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont	
Northwest	NW	Washington, Oregon, Idaho, Utah	Northeastern Arizona; northwestern California; western Montana; Nevada, except for greater Las Vegas; northwestern New Mexico; western Wyoming
Rocky Mountains	RM	Colorado	Nebraska panhandle; northwest New Mexico; western South Dakota; eastern Wyoming
Southeast	SE	Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee	Eastern Arkansas; western Kentucky; southern and northeast Louisiana; eastern Texas; eastern Virginia
Southwest	SW		Arizona except for northeast corner; southeast California; greater Las Vegas, Nevada; New Mexico except for northwest corner and eastern half; El Paso, Texas
Texas	TX		Texas, except for El Paso, northern panhandle, and parts of eastern Texas

Upper Midwest	WMW	Iowa, Minnesota, North Dakota	Illinois except for greater Chicago and Quad Cities; parts of upper peninsula, Michigan; eastern Missouri; eastern Montana; Nebraska except for panhandle; eastern South Dakota; Wisconsin except for greater Milwaukee and Green Bay

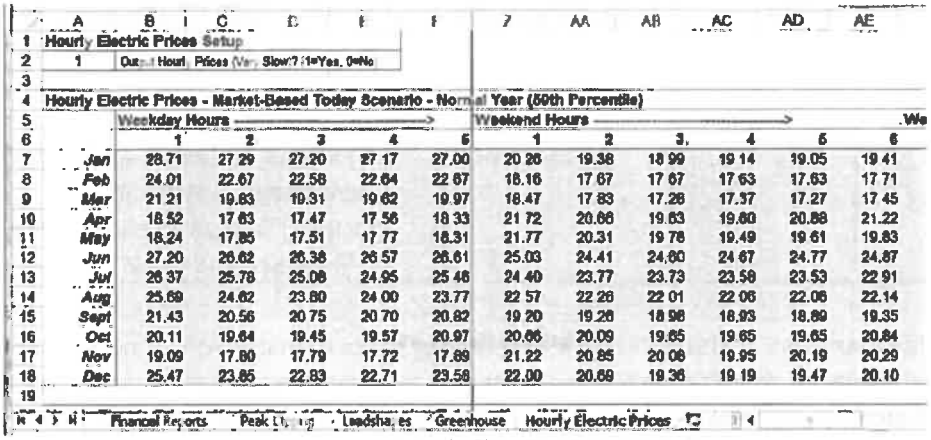
Air quality managers of states that are split among more than one AVERT region should evaluate displaced emissions in the region that is most representative of the location of the planned EE/RE program.

9.7 Hourly Electric Prices Worksheet

The Hourly Electric Prices Workbook is included in DSMore to provide additional transparency on the hourly avoided costs. The calculation and presentation of these results adds a few seconds of processing time to each DSMore run. By default, this report is turned off. The user can switch this report on by setting cell 'Hourly Electric Prices'A2 = 1.

The following avoided cost scenarios are presented on this worksheet. For each scenario, the monthly typical weekday and typical weekend hourly values are presented.

Avoided Cost	Scenario	Weather Type	Weekday	Weekend
Market-based	Today	Normal Year (50th Percentile)	B7:Y18	Z7:AW18
Market-based	Today	Extreme Year (95th Percentile)	B23:Y34	Z23:AW34
Cost-based		Normal Year (50th Percentile)	B39:Y50	Z39:AW50
Cost-based		Extreme Year (95th Percentile)	B55:Y66	Z55:AW66
Option-based		Normal Year (50th Percentile)	B71:Y82	Z71:AW82
Option-based		Extreme Year (95th Percentile)	B87:Y98	Z87:AW98



Hourly Electric Prices - Market-Based Today Scenario - Normal Year (50th Percentile)

		Weekday Hours →					Weekend Hours →					
		1	2	3	4	5	1	2	3	4	5	6
7	Jan	28.71	27.29	27.20	27.17	27.00	20.26	19.38	18.99	19.14	19.05	19.41
8	Feb	24.01	22.67	22.58	22.64	22.67	18.16	17.67	17.67	17.63	17.63	17.71
9	Mar	21.21	19.83	19.31	19.62	19.97	18.47	17.83	17.26	17.37	17.27	17.45
10	Apr	18.52	17.63	17.47	17.56	18.33	21.72	20.66	19.63	19.60	20.88	21.22
11	May	18.24	17.85	17.51	17.77	18.31	21.77	20.31	19.78	19.49	19.61	19.83
12	Jun	27.20	26.62	26.38	26.57	26.61	25.03	24.41	24.60	24.67	24.77	24.87
13	Jul	26.37	25.78	25.08	24.95	25.46	24.40	23.77	23.73	23.58	23.53	22.91
14	Aug	25.69	24.62	23.80	24.00	23.77	22.57	22.26	22.01	22.06	22.06	22.14
15	Sept	21.43	20.56	20.75	20.70	20.82	19.20	19.26	18.98	18.93	18.89	19.35
16	Oct	20.11	19.64	19.45	19.57	20.97	20.66	20.09	19.65	19.65	19.65	20.84
17	Nov	19.09	17.80	17.79	17.72	17.69	21.22	20.85	20.08	19.95	20.19	20.29
18	Dec	25.47	23.85	22.83	22.71	23.58	22.00	20.69	19.36	19.19	19.47	20.10

Hourly Electric Prices Outputs

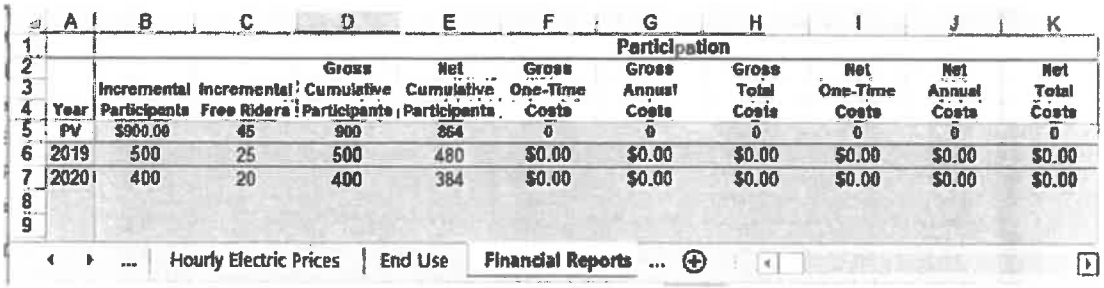
9.8 Financial Reports Ext Worksheet

This worksheet provides the same reporting details as the Financial Reports worksheet reformatted to report more than 25 years of annual data. The following table details the location of each report on this worksheet.

Report	Range
Participation	Columns B:M
Impacts with Losses	Columns N:AQ
Impacts w/o Losses	Columns AR:BU
Lost Revenues	Columns BV:CD
Utility Program Costs	Columns CE:CO
Market-Based Avoided Costs (Today Scenario)	Columns CP:CW
Market-Based Avoided Costs (Option Value)	Columns CX:DE
Cost-Based Avoided Costs	Columns DF:DM

9.8.1 Participation

The Participation and Total Participant Costs report details the total number of participants in the measure or program and the total measure costs paid by the participants (see the figure below).



	A	B	C	D	E	F	G	H	I	J	K
1		Participation									
2				Gross	Net	Gross	Gross	Gross	Net	Net	Net
3		Incremental	Incremental	Cumulative	Cumulative	One-Time	Annual	Total	One-Time	Annual	Total
4	Year	Participants	Free Riders	Participants	Participants	Costs	Costs	Costs	Costs	Costs	Costs
5	PV	$900.00	45	900	864	0	0	0	0	0	0
6	2019	500	25	500	480	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7	2020	400	20	400	384	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8											
9											

... | Hourly Electric Prices | End Use | Financial Reports | ...

Participant Report

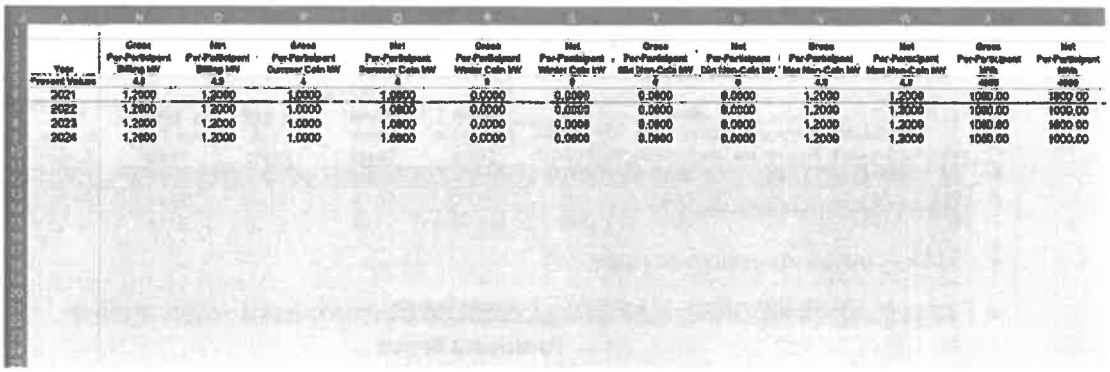
For each year of the program the following values are presented:

- *Incremental Participants* – the number of new participants in that year
- *Incremental Riders* – the number of new free riders in that year
- *Gross Cumulative Participants* –the cumulative number of new participants through that year
- *Net Cumulative Participants (net free/persist)* –the cumulative number of new participants through that year net of the cumulative free riders and dropouts
- *Gross One-Time Costs* –the cumulative one-time investment made by the participants
- *Gross Annual Costs* – recurring participant costs.
- *Net One-Time Costs* –the cumulative one-time investment made by the participants net of free riders and dropouts
- *Net Annual Costs* – recurring participant costs net of free riders and dropouts
- *Gross Tax Credit* – gross participant tax credits
- *Net Tax Credit* – gross participant tax credits net of free riders and dropouts

9.8.2 Impacts

The Impacts report presents the cumulative program electric and gas savings by participant and the yearly incremental savings. Impacts are provided with both losses included and losses excluded, in separate adjacent sections. The figures below show the "With Losses" results.

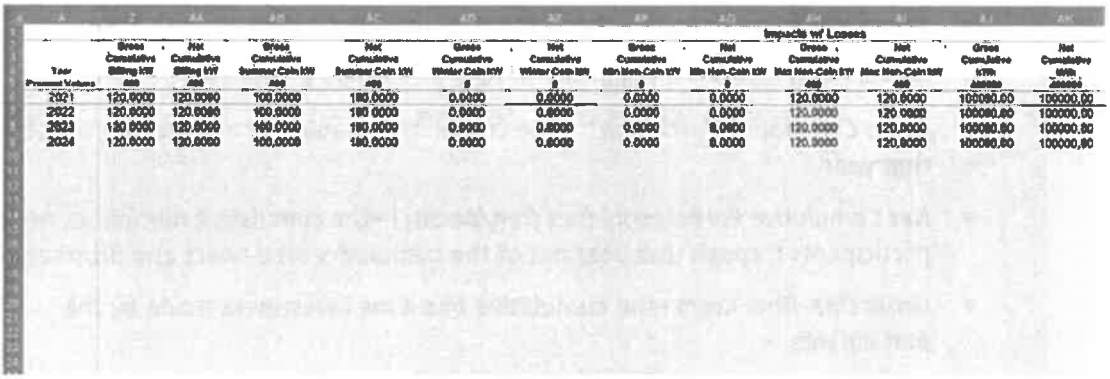
The Per Participant savings is the savings attributable to one participant.



Year	Gross Per-Participant Billing kW	Net Per-Participant Billing kW	Gross Per-Participant Summer Coin kW	Net Per-Participant Summer Coin kW	Gross Per-Participant Winter Coin kW	Net Per-Participant Winter Coin kW	Gross Per-Participant Min Non-Coin kW	Net Per-Participant Min Non-Coin kW	Gross Per-Participant Max Non-Coin kW	Net Per-Participant Max Non-Coin kW	Gross Per-Participant kWh	Net Per-Participant kWh
Present Value	4.0	4.0	4	4	0	0	0	0	4.0	4.0	####	####
2021	1.2000	1.2000	1.0000	1.0800	0.0000	0.0000	0.0000	0.0000	1.2000	1.2000	1080.00	1080.00
2022	1.2000	1.2000	1.0000	1.0800	0.0000	0.0000	0.0000	0.0000	1.2000	1.2000	1080.00	1080.00
2023	1.2000	1.2000	1.0000	1.0800	0.0000	0.0000	0.0000	0.0000	1.2000	1.2000	1080.00	1080.00
2024	1.2000	1.2000	1.0000	1.0800	0.0000	0.0000	0.0000	0.0000	1.2000	1.2000	1080.00	1080.00

Per Participant Electric Savings

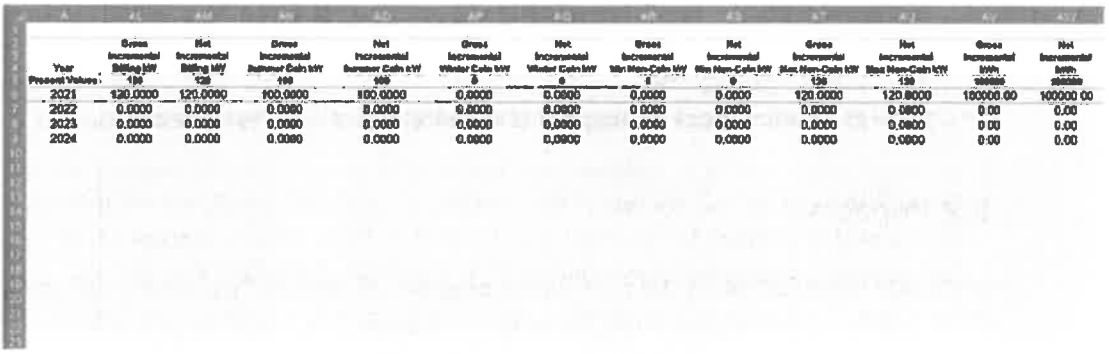
The Cumulative savings is the Per Participant savings times the number of participants.



Year	Gross Cumulative Billing kW	Net Cumulative Billing kW	Gross Cumulative Summer Coin kW	Net Cumulative Summer Coin kW	Gross Cumulative Winter Coin kW	Net Cumulative Winter Coin kW	Gross Cumulative Min Non-Coin kW	Net Cumulative Min Non-Coin kW	Gross Cumulative Max Non-Coin kW	Net Cumulative Max Non-Coin kW	Gross Cumulative kWh	Net Cumulative kWh
Present Value	400	400	400	400	0	0	0	0	400	400	######	######
2021	120.0000	120.0000	100.0000	100.0000	0.0000	0.0000	0.0000	0.0000	120.0000	120.0000	100080.00	100080.00
2022	120.0000	120.0000	100.0000	100.0000	0.0000	0.0000	0.0000	0.0000	120.0000	120.0000	100080.00	100080.00
2023	120.0000	120.0000	100.0000	100.0000	0.0000	0.0000	0.0000	0.0000	120.0000	120.0000	100080.00	100080.00
2024	120.0000	120.0000	100.0000	100.0000	0.0000	0.0000	0.0000	0.0000	120.0000	120.0000	100080.00	100080.00

Cumulative Electric Savings

The Yearly Incremental savings is the Per Participant savings times the incremental number of participants.



Year	Gross Incremental Billing kW	Net Incremental Billing kW	Gross Incremental Summer Coin kW	Net Incremental Summer Coin kW	Gross Incremental Winter Coin kW	Net Incremental Winter Coin kW	Gross Incremental Min Non-Coin kW	Net Incremental Min Non-Coin kW	Gross Incremental Max Non-Coin kW	Net Incremental Max Non-Coin kW	Gross Incremental kWh	Net Incremental kWh
Present Value	100	100	100	100	0	0	0	0	100	100	######	######
2021	120.0000	120.0000	100.0000	100.0000	0.0000	0.0000	0.0000	0.0000	120.0000	120.0000	100080.00	100080.00
2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
2024	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00

Yearly Incremental Electric Savings

- *kW* – measure demand (capacity) savings
- *kW (net)* – measure demand saving reduced by free riders and persistence
- *Summer Coin kW* – summer demand savings coincident with system peak

- *Summer Coin (net)* – summer demand savings coincident with system peak reduced by free rider and persistence
- *Winter Coin kW* – winter demand savings coincident with system peak
- *Winter Coin (net)* – winter demand savings coincident with system peak reduced by free rider and persistence
- *kWh* – measure energy savings
- *kWh (net)* – measure energy savings reduced by free riders and persistence

The Per Participant savings, Cumulative savings, and Yearly Incremental saving are also presented for the Gas savings (see the figure below).

	A	AX	AY	AZ	BA	BB	BC
1							
2		Gross Per-Participant	Net Per-Participant	Gross Cumulative	Net Cumulative	Gross Incremental	Net Incremental
3		CCF	CCF	CCF	CCF	CCF	CCF
4	Year						
5	Present Values	400	400	40000	40000	10000	10000
6	2021	100.00	100.00	10000.00	10000.00	10000.00	10000.00
7	2022	100.00	100.00	10000.00	10000.00	0.00	0.00
8	2023	100.00	100.00	10000.00	10000.00	0.00	0.00
9	2024	100.00	100.00	10000.00	10000.00	0.00	0.00
10							
11							
12							
13							
14							
15							
16							

Participant Gas Savings

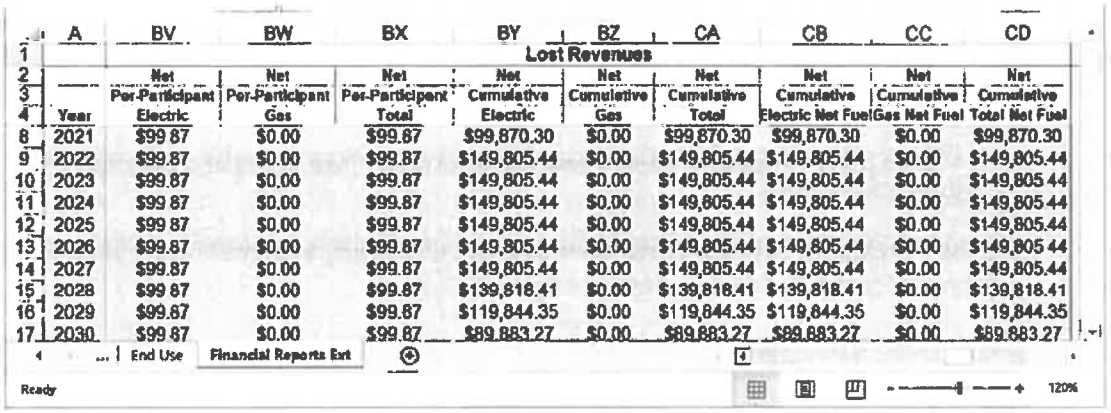
- *CCF* – measure gas savings
- *CCF (net)* – measure gas saving reduced by free riders and persistence

> **Note:** The impacts and savings at the meter, i.e., without losses, are presented on the Financial Reports Ext sheet in cells AR:BU. These results use the same definitions as presented above without the addition of the T&D loss factors.

9.8.3 Lost Revenue Dollars

The Lost Revenue Dollars report presents the utility electric and gas lost revenues as a result of the program. Lost revenue is the difference between the pre- and post- bills multiplied by the net participants. The lost revenue is reported by participant, cumulative (for all

participants), and cumulative net of any fuel adjustments. The reported Cumulative Lost Revenue and the Cumulative Lost Revenue (Net Fuel) are net of free riders and persistence.



	A	BV	BW	BX	BY	BZ	CA	CB	CC	CD
1		Lost Revenues								
2		Net	Net	Net	Net	Net	Net	Net	Net	Net
3		Per-Participant	Per-Participant	Per-Participant	Cumulative	Cumulative	Cumulative	Cumulative	Cumulative	Cumulative
4	Year	Electric	Gas	Total	Electric	Gas	Total	Electric Net Fuel	Gas Net Fuel	Total Net Fuel
8	2021	$99 87	$0.00	$99.87	$99,870.30	$0.00	$99,870.30	$99,870.30	$0.00	$99,870.30
9	2022	$99.87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805.44
10	2023	$99.87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805 44
11	2024	$99 87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805 44
12	2025	$99 87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805.44
13	2026	$99.87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805 44
14	2027	$99.87	$0.00	$99.87	$149,805.44	$0.00	$149,805.44	$149,805.44	$0.00	$149,805.44
15	2028	$99 87	$0.00	$99.87	$139,818.41	$0.00	$139,818.41	$139,818.41	$0.00	$139,818.41
16	2029	$99.87	$0.00	$99.87	$119,844.35	$0.00	$119,844.35	$119,844.35	$0.00	$119,844.35
17	2030	$99 87	$0.00	$99.87	$89,883.27	$0.00	$89,883.27	$89,883.27	$0.00	$89,883.27

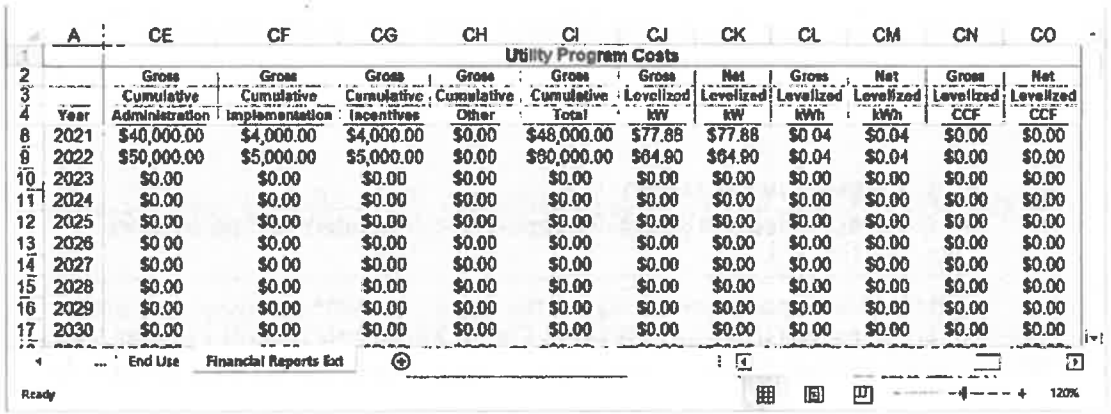
End Use | Financial Reports Ext

Ready 120%

Lost Revenue Report

9.8.4 Utility Program Costs

The Utility Program Costs report presents the costs for the utility to implement and manage the program by year. The utility costs are presented as total costs and costs per energy unit (kW saved, kWh saved, and CCF saved). These costs are the values entered on the Program Input worksheet A41:B51.



	A	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO
1		Utility Program Costs										
2		Gross	Gross	Gross	Gross	Gross	Gross	Net	Gross	Net	Gross	Net
3		Cumulative	Cumulative	Cumulative	Cumulative	Cumulative	Levelized	Levelized	Levelized	Levelized	Levelized	Levelized
4	Year	Administration	Implementation	Incentives	Other	Total	kW	kW	kWh	kWh	CCF	CCF
8	2021	$40,000.00	$4,000.00	$4,000.00	$0.00	$48,000.00	$77.88	$77.88	$0 04	$0.04	$0.00	$0.00
9	2022	$50,000.00	$5,000.00	$5,000.00	$0.00	$60,000.00	$64.90	$64.90	$0.04	$0.04	$0.00	$0.00
10	2023	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
11	2024	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
12	2025	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0 00	$0.00
13	2026	$0 00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
14	2027	$0.00	$0 00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
15	2028	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
16	2029	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
17	2030	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0 00	$0.00	$0.00	$0.00

End Use | Financial Reports Ext

Ready 120%

Utility Program Costs Report

9.8.4 1 Overall Costs

- *Administration* – the annual costs to administer the program, usually a fixed cost that does not vary with the number of participants (Program Input!D43:AB43)
- *Implementation* – the annual costs to implement the program, usually varies with the number of participants (Program Input!D44:AB44)
- *Incentives* – the annual costs of the incentive to participants, varies with the number of participants (Program Input!D45:AB45)
- *Other* – other program costs, these can be fixed costs or variable costs (Program Input!D46:AB46)
- *Total* – the sum of the administration, implementation, incentive, and other costs

9.8.4.2 Total Costs per kW, kWh and CC Saved

- *$/kW*- the Total Overall Utility Costs divided by the sum of the maximum Summer Coincident kW Saved and the maximum Winter Coincident kW Saved
- *$/kW (net)* - the Total Overall Utility Costs divided by the sum of the maximum Summer Coincident kW Saved and the maximum Winter Coincident kW Saved, net of free riders and persistence
- *$/kWh* - the Total Overall Utility Costs divided by the yearly kWh Saved
- *$/kWh (net)* - the Total Overall Utility Costs divided by the yearly kWh Saved, net of free riders and persistence
- *$/CCF* - the Total Overall Utility Costs divided by the yearly CCF Saved
- *$/CCF (net)* - the Total Overall Utility Costs divided by the yearly CCF Saved, net of free riders and persistence

9.8.5 Market-Based Avoided Costs (Net Free Riders/Persistence) for Today Scenario

The Market-Based Avoided Costs (Net Free Riders/Persistence) report presents the market-based electric and gas avoided costs for the Today Scenario by year (see the figure below). These are the avoided costs for all program participants net of free riders and persistence.

	A	CP	CQ	CR	CS	CT	CU	CV	CW
1		Market-Based Avoided Costs (Today Scenario)							
2		Net	Net	Net	Net	Net	Net	Net	Net
3		Energy	Adders/Capacity	T&D	Ancillary	Total	Production	Capacity	Total
4	Year	Electric	Electric	Electric	Electric	Electric	Gas	Gas	Gas
8	2021	$63,847.04	$3,192.35	$18,490.62	$0.00	$85,530.02	$0.00	$0.00	$0.00
9	2022	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
10	2023	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
11	2024	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
12	2025	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
13	2026	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
14	2027	$95,770.56	$4,788.53	$27,735.94	$0.00	$128,295.03	$0.00	$0.00	$0.00
15	2028	$89,385.86	$4,469.29	$25,886.87	$0.00	$119,742.02	$0.00	$0.00	$0.00
16	2029	$76,616.45	$3,830.82	$22,188.75	$0.00	$102,636.02	$0.00	$0.00	$0.00

... | End Use | Financial Reports Ext

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Market-Based Avoided Costs (Today Scenario)

9.8.5.1 Cumulative Electric

- *Energy + Adders* – the annual market-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual market-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual market-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.8.5.2 Cumulative Gas

- *Gas Distribution* – the annual market-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual market-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.8.6 Market-Based Avoided Costs (Net Free Riders/Persistence) for Option Value

The Market-Based Avoided Costs (Net Free Riders/Persistence) for Option Value report presents the market-based electric and gas avoided costs for the Option Value by year (see

the figure below). These are the avoided costs for all program participants net of free riders and persistence.

	A	CX	CY	CZ	DA	DB	DC	DD	DE
1		Market-Based Avoided Costs (Option Value)							
2									
3		Net Energy Electric	Net Adders/Capacity Electric	Net T&D Electric	Net Ancillary Electric	Net Total Electric	Net Production Gas	Net Capacity Gas	Net Total Gas
4	Year								
8	2021	$70,467.97	$3,523.40	$18,490.62	$0.00	$92,482.00	$0.00	$0.00	$0.00
9	2022	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
10	2023	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
11	2024	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
12	2025	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
13	2026	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
14	2027	$105,701.96	$5,285.10	$27,735.94	$0.00	$138,722.99	$0.00	$0.00	$0.00
15	2028	$98,655.16	$4,932.76	$25,886.87	$0.00	$129,474.79	$0.00	$0.00	$0.00
16	2029	$84,561.57	$4,228.08	$22,188.75	$0.00	$110,978.39	$0.00	$0.00	$0.00

End Use | Financial Reports Ext

Ready 100%

Market-Based Avoided Costs Option Value

9.8.6.1 Cumulative Electric

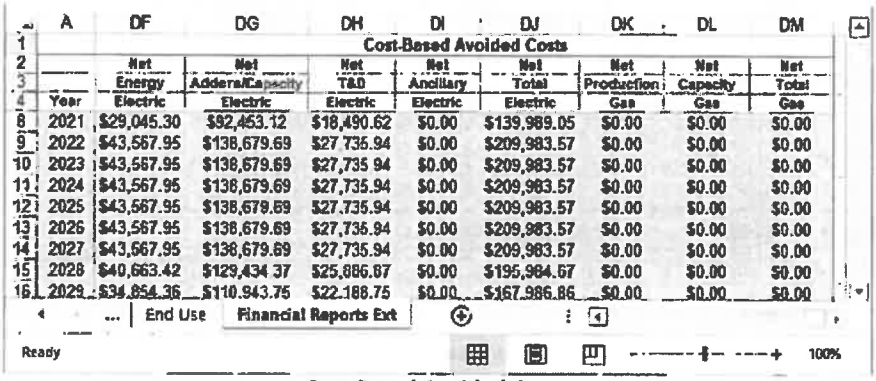
- *Energy + Adders* – the annual market-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual market-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual market-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.8.6.2 Cumulative Gas

- *Gas Distribution* – the annual market-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual market-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total market-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.8.7 Cost-Based Avoided Costs (Net Free Riders/Persistence)

The Cost-Based Avoided Costs (Net Free Riders/Persistence) report presents the cost-based electric and gas avoided costs by year (see the figure below). These are the avoided costs for all program participants net of free riders and persistence.



	A	DF	DG	DH	DI	DJ	DK	DL	DM
1		Cost-Based Avoided Costs							
2		Net	Net	Net	Net	Net	Net	Net	Net
3		Energy	Adders/Capacity	T&D	Ancillary	Total	Production	Capacity	Total
4	Year	Electric	Electric	Electric	Electric	Electric	Gas	Gas	Gas
8	2021	$29,045.30	$92,453.12	$18,490.62	$0.00	$139,989.05	$0.00	$0.00	$0.00
9	2022	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
10	2023	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
11	2024	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
12	2025	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
13	2026	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
14	2027	$43,567.95	$136,679.69	$27,735.94	$0.00	$209,983.57	$0.00	$0.00	$0.00
15	2028	$40,663.42	$129,434.37	$25,886.87	$0.00	$195,984.67	$0.00	$0.00	$0.00
16	2029	$34,854.36	$110,943.75	$22,188.75	$0.00	$167,986.86	$0.00	$0.00	$0.00

Cost-Based Avoided Costs

9.8.7.1 Cumulative Electric

- *Energy* – the annual cost-based electric energy avoided costs for all program participants through that year, net of free riders and persistence
- *Capacity* – the annual cost-based electric capacity avoided costs for all program participants through that year, net of free riders and persistence
- *T&D* – the annual cost-based electric transmission and distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Ancillary* – the annual cost-based electric ancillary avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total cost-based electric avoided costs for all program participants through that year, net of free riders and persistence

9.8.7.2 Cumulative Gas

- *Gas Distribution* – the annual cost-based gas distribution avoided costs for all program participants through that year, net of free riders and persistence
- *Gas Fuel* – the annual cost-based gas fuel avoided costs for all program participants through that year, net of free riders and persistence
- *Total* – the total cost-based electric avoided costs for all program participants through that year, net of free riders and persistence

10 DSMore Tools

This section describes the use of the tools included with DSMore. These tools allow the users to optimize their use of DSMore.

These DSMore tools are automatically installed when the DSMore installation process is performed. The following table shows where to find these files, where XXX is the file year, e.g., 2014:

DSMore Version	Tool locations
For pre 2014 versions	C:\Program Files\Integral Analytics\DSMore XXXX
For 2014-2917 versions	C:\Users\<username>\AppData\Local\Integral Analytics\DSMore XXXX
Post 2017 versions	C:\Users\<username>\AppData\Local\Integral Analytics\DSMore

10.1 Batch Tool

The purpose of the stand-alone DSMore Batch Tool is to allow the user to run multiple DSMore projects without having to manually call up DSMore and enter the data. This is a tremendous time saver when screening multiple Energy Efficiency and/or Peak Clipping programs.

10.1.1 Overview

The Batch Tool is an Excel workbook that consists of two worksheets. The first worksheet (the "Input" worksheet) contains the user-defined DSMore fields that will be changed in each DSMore run. The second worksheet (the "Results Summary" worksheet) contains the user-defined fields that will be pulled from each DSMore run. This worksheet allows for easy review of results as well as allowing for development of reports or further analysis.

For each measure or program on the Input worksheet, the Batch Tool copies the information from the Input worksheet into the chosen DSMore template, executes DSMore, saves the executed DSMore file, extracts the information, and stores the requested information on the Result Summary worksheet. Each of these steps is discussed in detail below.

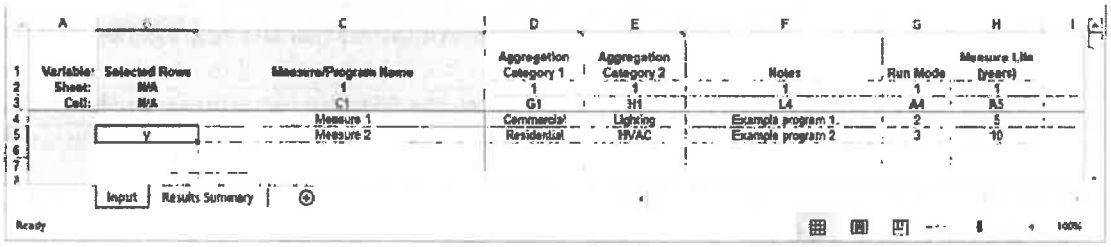
10.1.2 Implementation

The first step in using the Batch Tool is to set up DSMore to run the analysis. This involves setting all the fields in a DSMore template that will not vary across the portfolio of

programs. The next step is to set up the Batch Tool Input worksheet and the Results worksheet prior to running the batch tool.

10.1.3 Input Worksheet

Once we have determined the sections of the DSMore template that will be modified by the Batch Tool, we create the columns in the Input worksheet to modify these cells in the DSMore template. Rows 1-3 of the Batch Tool tells the tool the name of the variable, the worksheet location, and the cell reference (see the figure below). **The Batch Tool can be used to write to any cell in the DSMore spreadsheet.**



Batch Tool Input Rows

- Variable: (Row 1) – this cell allows the user to identify the field in DSMore that will be modified. This row is not used in the DSMore execution and can have any value in it.
- Worksheet: (Row 2) - is the worksheet name or index number from left to right – Program Input (or 1), Utility Input (or 2), and so on.
- Cell: (Row 3) - identifies the cell or cells that will be changed. These are identified by column and row, as in A4, or the reference can be entered as a range, i.e., E15:P15. If a range is entered, DSMore will use the same value for every cell in that range.

Column A in the Batch Tool is no longer used in DSMore. In versions prior to 2017, column A was used to select which measures/programs to run. However, a dedicated column (Column B) was added in 2017 for this purpose.

Column B is used to select which rows on the worksheet to run. If the entire column B is empty, then all the measures/programs in Column C will be run. A subset of the measures on the Input worksheet can be run by entering a 'y' to select a row(s).

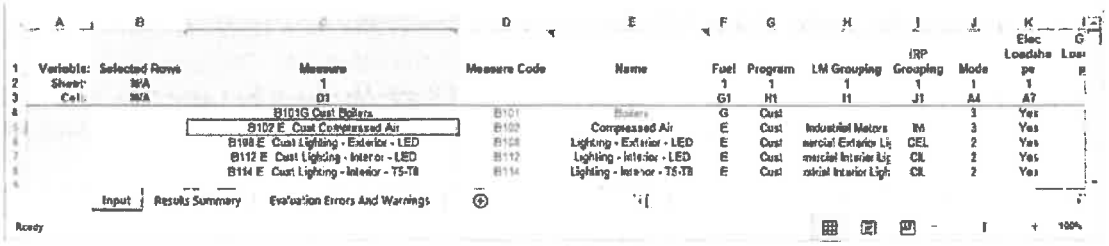
> ***Tip:***
> *DSMore will save each measure in the Batch Tool with the name located in column C. In addition to the measure name, the user can use the Excel date and time functions to date stamp each run. For example, rather than simply* ***"T-8 8ft 1 lamp"****, a formula can be used, for example* ***"="T-8 8ft 1 lamp" &" - "& MONTH(NOW())&"-"&DAY(NOW()) &"-"&YEAR(NOW())"****. This formula will save the measure ran, for example, on January 1, 2009 with the following name: "T-8 8ft 1 lamp – 1-1-2009".*

The Measure variable, or measure name, in Column C writes to the DSMore cell B1 on worksheet 1 (the Program cell on the Program Input worksheet). It also uses this text as the filename to save the executed DSMore file for future use and by the Aggregation tool. ***If Column C is blank, DSMore will display an error.*** It will be beneficial to use a name here that is meaningful in order to recall what measure the DSMore file represents (for example: T-8 HO 8 ft 1 Lamp Fixture). Note that the saved file will have a "Batch" prefix to this name, to signify that it was run under the batch tool.

As discussed in Section 5.1, there are five cells ('Program Input'!G1-K1) for user-defined aggregation categories. These categories are used to aggregate the results of multiple DSMore runs. Example categories include measure technology (e.g., Lighting, HVAC), programs (e.g., Efficient Products, Commercial LEDs), or sectors (e.g., Residential, Commercial). These categories are used by the Aggregation tool to summarize the results at the category levels. Adding these categories to each measure in the DSMore Batch Tool will facilitate the summary of measures.

The rest of the Input worksheet is completely customizable. Simply note what cells will be changed in the DSMore Template and record the information on the Input worksheet.

The resulting Batch Tool Input worksheet for a variety of measures would look like the figure below.



Batch Tool Set-up

Once the Input worksheet has been completed, the next step is to select which DSMore results should be captured in the Results Summary worksheet.

10.1.4 Results Summary Worksheet

The Results Summary worksheet follows the same convention as the Input worksheet, in that each row represents the results of a single DSMore run. The first row is the name of the variable and the second and third rows provide the location of the results within DSMore. The results that will be extracted from the run are from the DSMore worksheet entered in row 2 and DSMore cell entered in row 3 of each column in the spreadsheet. The remaining rows are left blank and will be populated by the Batch Tool after each DSMore run. For example, if the user wanted the results of Today's TRC, Alt. TRC, and Option TRC tests for the programs above, then the Results Summary worksheet would be:

	A	B	C	D	E	F	G	H	I	J	K
1	Variable:	Program	Last Run	Today's TRC	Alt. TRC	Option TRC	Today's Avoid Cst TRC	Target kWh/customer	Target kW/customer	Measure life	Increment Costs YR
2	Sheet:	1	1	3	3	3	3	1	1	1	1
3	Cell:	D1	H10	D5	E5	F5	D57	B21	B22	A5	D44
4		Direct Install Kit	3/21/14 3:54 PM	26.53	26.31	29.80	$3,711,444.60	1170	0.13	7	$32,490.0
5		Pin Based CFL Table Lamp	3/21/14 3:54 PM	0.32	0.34	0.34	$222,749.27	78	0.05	12	$88,080.0
6		9-16W Pin Based CFL - Outdoor Fixture	3/21/14 3:54 PM	0.69	0.72	0.71	$393,171.65	178	0.06	12	$96,000.0
7		17-24W Pin Based CFL - Outdoor Fixture	3/21/14 3:54 PM	0.85	0.89	0.88	$291,165.94	220	0.07	12	$57,600.0
8		Indoor Torchieres	3/21/14 3:54 PM	0.60	0.63	0.64	$626,248.67	164	0.20	12	$125,000.0
9		9-16W Pin Based CFL Fixture	3/21/14 3:55 PM	0.64	0.67	0.68	891,154.69	70	0.05	12	$25,000.0
10		Pipe	3/21/14 3:55 PM	14.85	14.92	15.26	$1,164,762.33	257	9999.00	5	$16,000.0
11		Wall Ins	3/21/14 3:55 PM	0.09	0.09	0.09	$372,698.84	107.2	9999.00	20	$634,065.6
12		Infiltration Reduction - 15%	3/21/14 3:55 PM	0.78	0.76	0.48	$278,609.32	98	9999.00	13	$72,000.0
13		HVAC Tune Up	3/21/14 3:55 PM	0.86	0.95	0.51	$204,480.66	87.5	9999.00	10	$48,300.0
14		Ceiling Ins	3/21/14 3:55 PM	0.18	0.17	0.11	$298,993.65	97	9999.00	13	$227,085.0
15		Duct Ins	3/21/14 3:55 PM	0.30	0.28	0.19	$156,495.53	58	9999.00	20	$96,000.0
16		Furn Replace with ECM	3/21/14 3:55 PM	0.42	0.40	0.25	$527,982.78	425	9999.00	15	$293,165.0
17		Operations Costs	3/21/14 3:55 PM	0.00	0.00	0.00	$0.00	0.001	9999.00	1	$0.00
18											
19											
20											
21											

Results Summary | Evaluation Errors

Ready

Batch Tool results

Once DSMore executes a row in the Input worksheet, the Batch Tool automatically fills the row in the Results Summary worksheet, so there will be a one-to-one correspondence across the two worksheets.

One of the benefits of having the Batch Tool in Excel is that it is possible to do additional analysis with these results without having to transfer the data (such as charting, graphing, or running @Risk). However, it is important that any other non-DSMore related work done by the user not use rows 2 and 3, as rows 2 and 3 are reserved by the Batch Tool to pull data from the DSMore file. If this protocol is not followed by the user, it may lead to unexpected results.

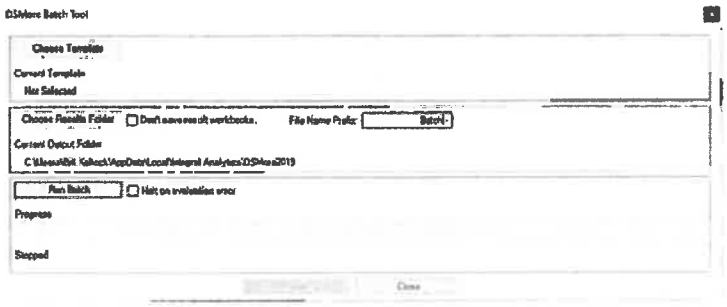
10.1.5 Run Batch Tool

Once the Input and Results Summary worksheets are set up, the next step is to run the Batch Tool. This is accomplished by using the "Run Batch" button in the DSMore menu. A DSMore Batch Tool input screen will appear (see the figure below).

Choose Template – when the input dialog box opens the user will be directed to choose a DSMore template to use for the Batch analysis. This template can either be a blank template or a template that has common cells for a set of programs populated. If the template is blank, then the user will need to enter all the input variables in the Batch Tool Input worksheet.

Choose Results Folder – This is the folder where each of the DSMore files created by the Batch Tool will be saved. There will be one DSMore file created for each row on the Input worksheet. **Note that the dialog box presented to the user does not display the files in each folder, only the folder name.**

File Name Prefix – This prefix will be added in front of the measure/program name and used to name each of the files from the batch runs.



DSMore Batch Run Dialog Inputs

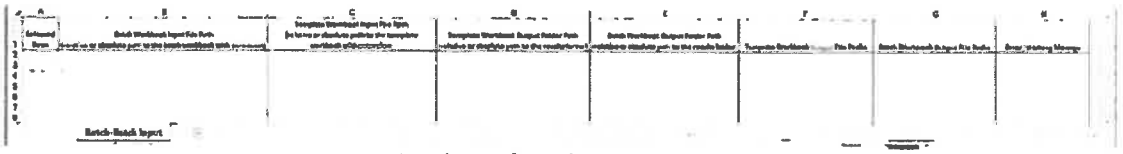
The button on the left, "Run Batch," runs the Batch Tool. This takes the data on the Input worksheet, fills in the defined cells in DSMore, executes the model, extracts the data defined in the Results Summary worksheet, and saves the data in each row as separate DSMore files with names from the Measure Name column on the Input worksheet. The progress bar will display the Batch Tool progress.

After reviewing the results, individual measures can be rerun without having to rerun all the measures in the batch tool. To rerun a measure, enter a 'y' in column A of the Inputs worksheet. Only those rows with a 'y' will be rerun. Only the results for the rerun measures are overwritten. The results for all the other measures are preserved. Note to rerun all measures again, remove any 'y' indicators from Column A.

Once completed, it is time to review the results and use the Aggregation Tool to compile the results by program, sector, and portfolio.

10.2 Batch-Batch Tool

The Batch-Batch Tool allows the user to run multiple batch files consecutively. The user sets up each Batch Tool as described above and then opens up the Batch-Batch tool.



Batch-Batch Tool Setup Screen

10.2.1 Batch-Batch Input

Setting up the Batch-Batch tool to run is straightforward. All file locations can be entered as absolute paths or relative paths. An absolute path is the full path (e.g., "C:\aggregation\run1"). A relative path is the path relative to the batch-aggregation workbook (e.g., "run1"). The relative path is more portable, since the parent folder can be moved to anywhere and the batch aggregation will always work. The absolute path is more useful if the aggregation templates is stored in a central location that doesn't change.

Selected Rows (column A): If there are no entries in this column, the tool will run all the batch tools listed. If "y" is entered in this column then the tool runs only that Batch Tool in that row. This feature is useful for rerunning selected Batch Tools instead of rerunning all the Batch Tools in this workbook.

Batch Workbooks (column B): Path to the batch tool to run.

Template Workbook Input File Path (column C): Path to the DSMore template file the batch tool should use for that run.

Template Workbook Output Folder Path (column D): The folder to save the resulting workbooks from each batch process.

Batch Workbook Output Folder Path (column E): The folder to save the resulting batch workbooks from each run.

Template Workbook Output File Prefix (column F): This prefix will be added in front of the measure/program name and used to name each of the files from the batch runs.

Batch Workbook Output File Prefix (column G): This prefix will be added in front of the batch tool to name each of the saved batch files.

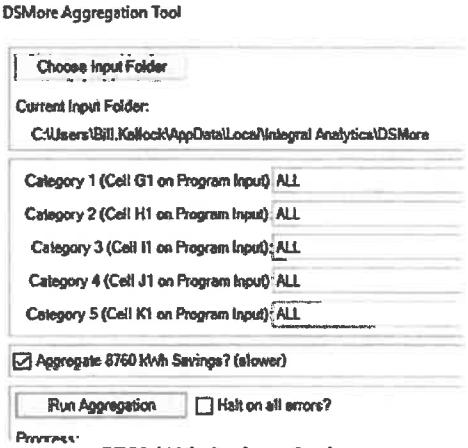
Error/Warning Message (column H): This is an output cell that displays any errors or warnings from each batch run. Since there may be many batch runs, the batch-batch tool doesn't stop when it finds an error with a certain row. It will highlight that entire row in red

and write the error message out. An example error would be that the path to the batch template is invalid. The only warning occurs when the "save-to" folder doesn't exists, so the batch-batch tool creates the folder.

10.3 Aggregation Tool

The purpose of the DSMore Aggregation Tool is to allow the user to combine multiple DSMore projects to produce aggregate cost-effectiveness results by program, sector, or specific technologies. This may be necessary for developing and analyzing portfolios of programs for a utility or a state program.

The Aggregation Tool uses the "Run Aggregation" button on the DSMore tab, which prompts the user for folder, sector, and technology that will be aggregated. Once these fields are completed, the Aggregation Tool essentially calls up the previously executed DSMore files, extracts the required information, and adds it to the fields in the first three worksheets. It then recalculates the Test Results using these total costs and savings from the executed runs. The implementation of the Aggregation Tool is discussed in detail below.



8760 kWh Savings Option

10.3.1 Aggregation Tool Worksheets

The Aggregation Tool workbook has six worksheets to capture the aggregated results of the DSMore runs. These worksheets will contain the aggregated results when the Aggregation Tool is executed.

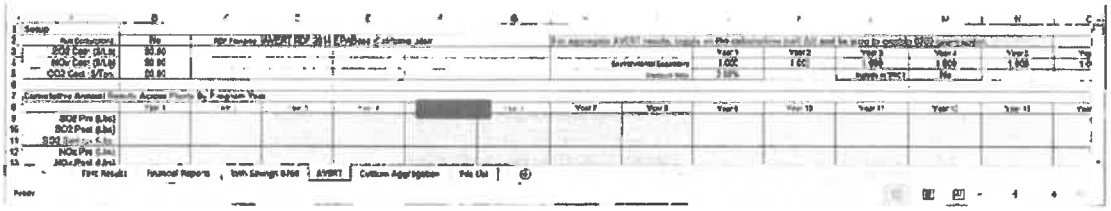
These worksheets include:

- Test Results – same worksheet found in the DSMore Tool
- Financial Reports – same worksheet found in the DSMore Tool
- kWh Savings 8760

  - Cumulative (net Free) 8760 kWh Savings by Year with Losses
  - Cumulative (Net Free) Peak-Day kWh Savings by Month and Year with Losses
  - Cumulative (Net Free) Hourly Typical Weekday kWh Savings by Year with Losses
  - Cumulative (Net Free) Hourly Typical Weekend kWh Savings by Year with Losses
- AVERT – described in detail below
- Custom Aggregation – described in detail below
- File List – List of the files that were processed during the aggregation run, date, time and categories used

10.3.1.1 AVERT

The AVERT worksheet calculates the GHG reductions as a result of the **aggregated** energy savings. In order to have all the data necessary for this calculation, the 8760 kWh savings option needs to be selected in the Aggregation Tool dialog (see the figure above) and the "run calculations" option in cell B2 on the AVERT worksheet needs to be set to "Yes" (see the figure below).



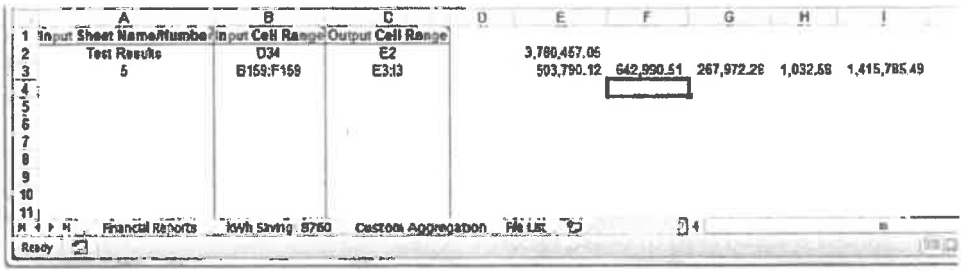
AVERT Calculation Switch

10.3.1.2 Custom Aggregation

The Custom Aggregation worksheet allows the user to aggregate any value across DSMore workbooks. This worksheet is used if the user wants to capture DSMore results that are not included on the Test Results or Financial Reports worksheets. The worksheet consists of three columns for inputs:

- Input worksheet Name/Number – Enter the worksheet name (without quotes) or number from which to pull the data.
- Input Cell Range - Enter the cell or cell range to pull for aggregation.
- Output Cell Range – Enter the cell or cell range on the Custom Aggregation worksheet to write the aggregated values to. Ensure that the number of cells match the input range.

The figure below shows an example of the Custom Aggregation worksheet.

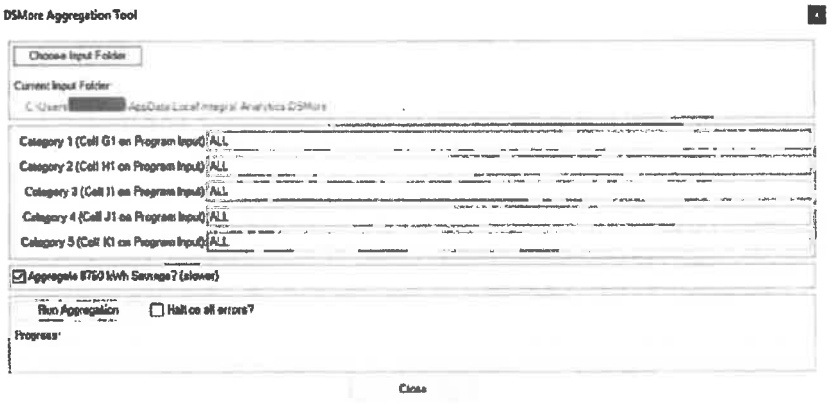


10.3.2 Implementation

The Aggregation Tool is ***designed to work with the Batch Tool.*** The Aggregation Tool will only aggregate DSMore runs stored in a single folder – it is not capable of aggregating across folders. The first step in running the Aggregation tool is simply clicking on the "Run Aggregation" button on the tool bar. The user is presented with a dialog box (see the figure below) asking them to choose the folder containing the DSMore results to aggregate.

The Aggregation Tool seeks out DSMore files with the "Batch" prefix. If the user wishes to use the Aggregation tool without the Batch Tool, "Batch" must be added to the beginning of the stored DSMore files.

Note that the dialog box presented to the user to select the "Current Input Folder" does not display the files in each folder, only the folder name.



DSMore Aggregator Menu

Once the folder is chosen, the user will be given the message to verify that the folder is correct (and given the chance to start over again).

If the folder is correct, the user will then be prompted for the categories to aggregate. **The category entry must match exactly the category entry the user set in cells G1-K1 of the Program Input worksheet of DSMore.** The default value is all, so that the aggregation tool

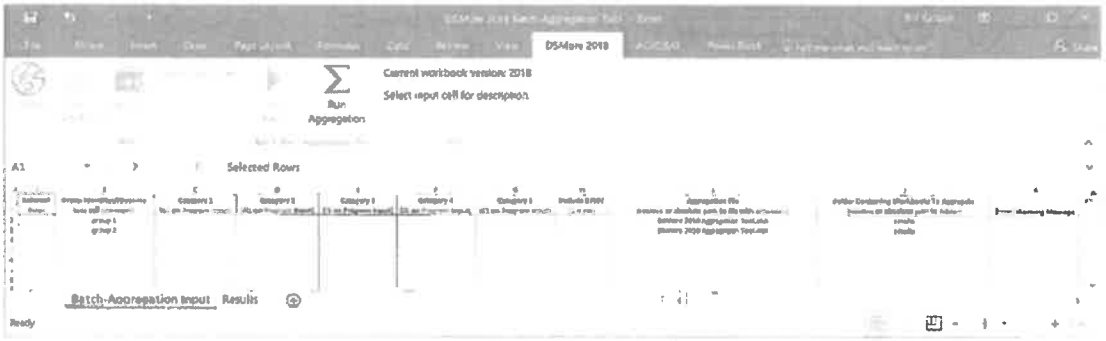
will combine all DSMore files in the directory, irrespective of what is in that cell on the DSMore file.

> **CAUTION:** When aggregating year-by-year DSMore runs, i.e., DSMore runs that have 'Program Input'!A7 set to "Yes", the year-by-year runs include each year of the program, as well as all years. Aggregating a folder that contains these runs will double count the impacts.
>
> To avoid this problem, in the original Batch Tool the user needs to set one of the aggregation categories ('Program Input'!G1:K1) to the year value in 'Program Input'!D7. With this value in the Batch Tool runs, the user can then aggregate by individual year or by "All Years".

After adding an entry for each of the five categories, the Aggregation Tool will combine the appropriate data from all the DSMore runs and store the data in the spreadsheet. Once completed, the spreadsheet is automatically stored in the same folder and renamed "<Original Filename> Results - <Category 1> - <Category 2> - <Category 3> - <Category 4> - <Category 5>.xlsb", where the categories are the entries from the aggregation tool. The user should review the files in the File List to ensure that the appropriate files were included in the aggregation process. If so, then the information in the first three tabs represents the cumulated DSMore results for the categories specified by the user.

10.4 Batch-Aggregation Tool

The Batch-Aggregation Tool allows the user to run multiple aggregation files consecutively. The user sets up each Aggregation file as described above and then opens up the Batch-Aggregation tool.



Batch-Aggregation Tool Setup Screen

10 4.1 Batch-Aggregation Input Worksheet

Setting up the Batch-Aggregation tool to run is straight forward. All file locations can be entered as absolute paths or relative paths. An absolute path is the full path (e.g., "C:\aggregation\run1"). A relative path is the path relative to the batch-aggregation workbook (e.g., "run1"). The relative path is more portable, since the parent folder can be moved anywhere, and the batch aggregation will always work. The absolute path is more useful if the aggregation templates will be stored in a central location that doesn't change.

Selected Rows (column A): If there are no entries in this column, the tool will run all the aggregation tools listed. If "y" is entered in this column, then the tool runs only that Aggregation Tool in that row. This feature is useful for rerunning selected Aggregation Tools instead of rerunning all the Aggregation Tools in this workbook.

Group Identifier (column B): This is a description of the aggregation run and will be added to the filename that is used to save each run's results. This prevents duplicate filenames when aggregating the same sector/technology for different groups of files. The group identifier is used to prevent aggregation files from overwriting each other when aggregating the same sector/technology across runs (e.g., running multiple territories).

Custom Filenames (column B): A custom filename (without .xlsx extension) can be entered in the group identifier cell (column B) and precede the filename with a tilde (~). The tilde will instruct DSMore to use the entered filename instead of generating a filename from the group identifier, sector, and technology. For example, "~AggregationRun01" (without the quotes).

Categories (columns C-G): Specify the categories to aggregate. The Aggregation Tool aggregates only the DSMore runs that are in these categories. The Aggregation Tool looks for the categories identifier in the 'Program Inputs' !G1:K1 cell in each of the DSMore workbooks that are being aggregated.

Include 8760? (column H) (1 = yes): Aggregating 8760 slows the process, so the user can turn this off.

Path to Aggregation Template (column I): The path to the aggregation template. The aggregation template is the same as the single aggregation tool.

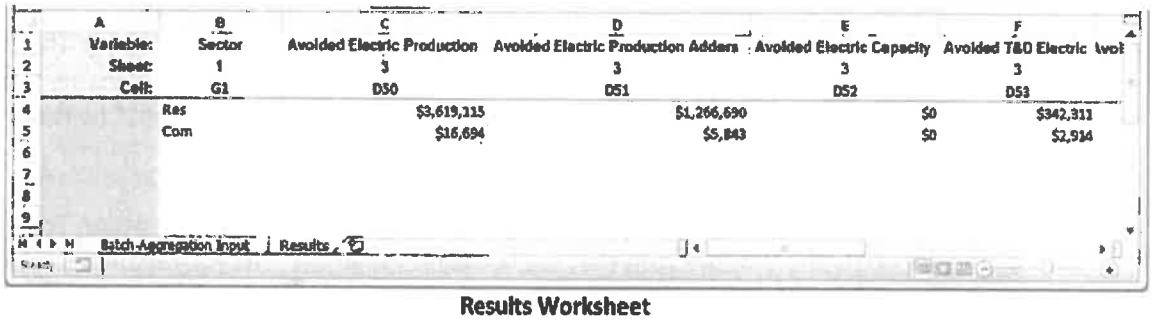
Path to Workbooks (column J): The path to the individual DSMore workbooks that will be aggregated.

Error/Warning Message (column K): This is an output cell that displays any errors or warnings from each aggregation run. To ensure that all the aggregations run, the batch-aggregation doesn't stop when it finds an error with a certain row. It will highlight that entire row in red and write the error message in this column, e.g., invalid path to the aggregation template.

By default, the aggregation workbooks will be saved with the same naming convention explained in the previous section. However, the user can customize the filename using the group identifier. By placing a tilde (~) at the beginning of the group name, DSMore will use the exact entry as the resulting filename. For example, the group identifier "~Aggregation 1" would produce the file "Aggregation 1.xlsb".

10.4.2 Results Worksheet

The Results worksheet follows the same convention as the Batch Results worksheet, in that each row represents the results of a single DSMore Aggregation. The first row in the worksheet is the name of the variable and the second and third rows provide the location of the results within DSMore that will be aggregated. The results that will be aggregated are from the DSMore worksheet entered in row 2 and DSMore cell entered in row 3 of each column in the spreadsheet. The remaining rows are left blank and will be populated by the Batch-Aggregation Tool after each Aggregation. For example, if the user wanted to aggregate the Avoided Electric Production, the Avoided Electric Production Adders, Avoided Electric Capacity, and Avoided T&D Electric, then the Results Summary worksheet would be:



	A	B	C	D	E	F
1	Variable:	Sector	Avoided Electric Production	Avoided Electric Production Adders	Avoided Electric Capacity	Avoided T&D Electric Wol
2	Sheet:	1	3	3	3	3
3	Cell:	G1	D50	D51	D52	D53
4		Res	$3,619,115	$1,266,690	$0	$342,311
5		Com	$16,694	$5,843	$0	$2,914
6						
7						
8						
9						

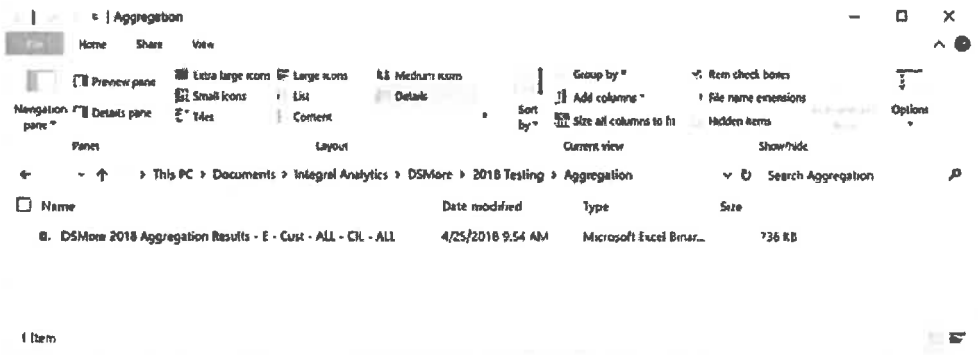
Batch-Aggregation Input | Results

Results Worksheet

10.4.3 Output files

Below is an example of the output files from this Batch-Aggregation run (see the figure below). Please note the file names of the results are:

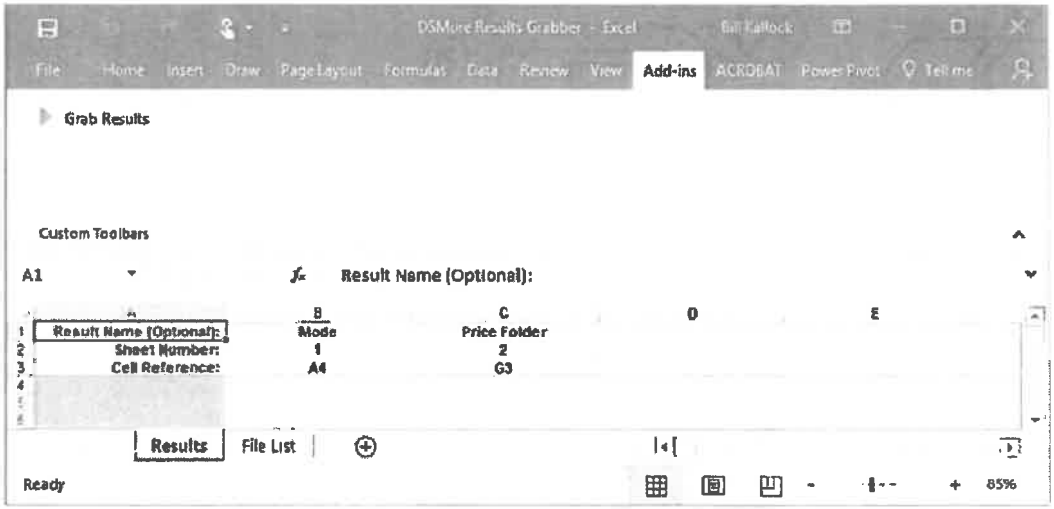
Format: <Original Filename> Results – <Category 1> - <Category 2> - <Category 3> - <Category 4> - <Category 5>
Example: DSMore 2020 Aggregation Results – E – Cust – All – CIL - All



Aggregation File Output

10.5 DSMore Results Grabber

The DSMore Results Grabber tool has a number of uses, including pulling additional results data from a set of DSMore workbooks and recreating a Batch Tool. The Results worksheet in the tool follows the same convention as the Batch Input worksheet, in that each row represents one of the DSMore workbooks. The first row in the worksheet is the name of the variable and the second and third rows provide the location of the data within the DSMore workbook that will be pulled into the tool. The data will be pulled from the DSMore worksheet entered in row 2 and DSMore cell entered in row 3 of each column in the spreadsheet. An example of the Results Grabber tool is presented in the figure below.



Results Grabber tool

Once the format of the Results Grabber tool is created, then click on the "Grab Results" button on the Add-in ribbon tab (see the figure above). The dialog will ask for the location

of the files to use. The tool will then open each DSMore workbook in that folder and import the data specified in rows 1-3.

10.6 DSMore with @Risk or Crystal Ball

@RISK and Crystal Ball use Monte Carlo simulation to show the user many possible cost-effectiveness outcomes and tell the user how likely outcomes are to occur. DSMore by itself reports probability distributions reflecting weather-related variation in load and prices. By using @RISK or Crystal Ball, the planner can extend uncertainty analysis to other variables as well. This helps the user to judge which risks to take and which ones to avoid.

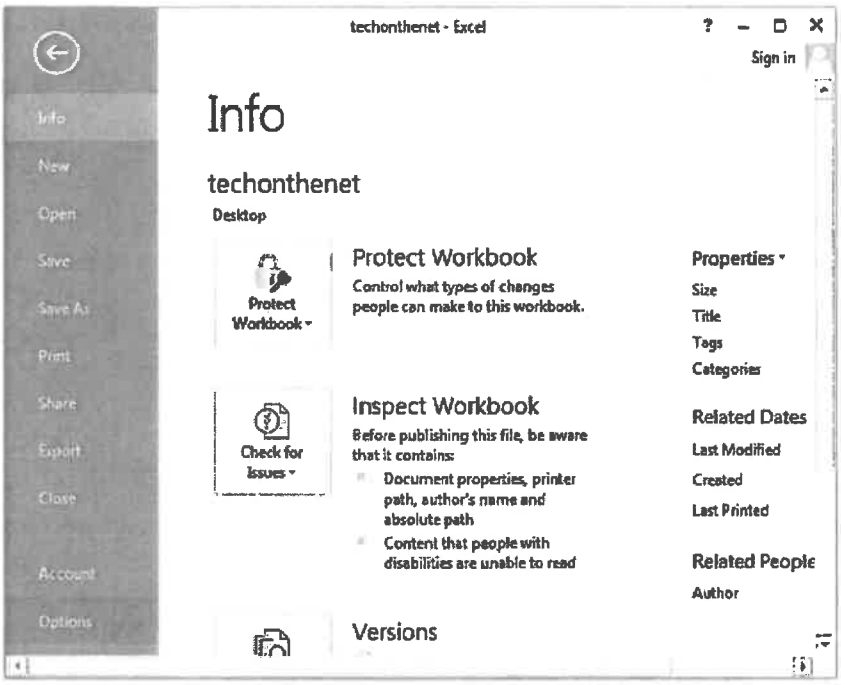
10.6.1 Implementation

To use @RISK or Crystal Ball with DSMore, a VBA sub-procedure can be called during a simulation to allow DSMore to evaluate the program and return the resulting cost-effectiveness calculations into the simulation results. The VBA code for the sub-procedure is shown below. Just paste this code into your workbook and have @Risk or Crystal Ball execute the procedure.

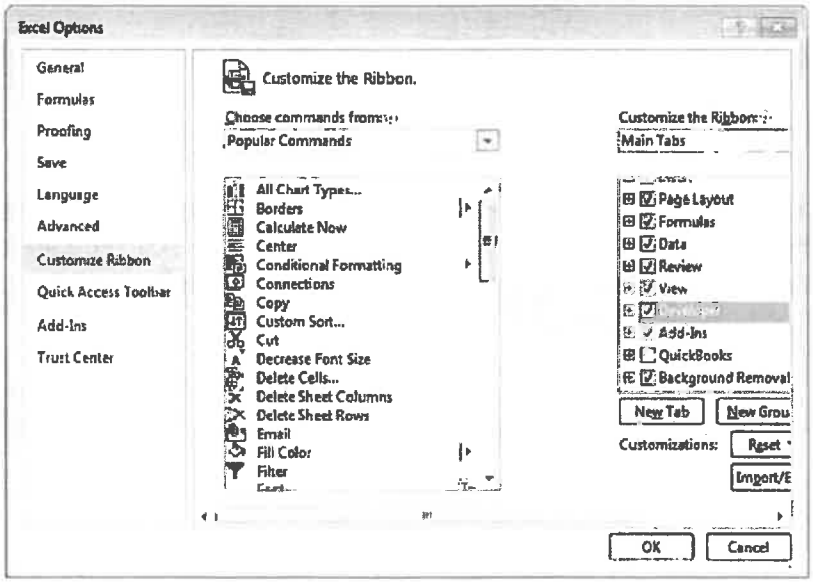
```
Sub CallDsmoreFromVba()

Dim dsmoreObject As Object
Set dsmoreObject = Application.COMAddIns("IA_Dsmore_ExcelComAddin.AddinModule").Object
dsmoreObject.RunDSMoreFromVBA

End Sub
```

The **Developer** tab needs to be added to the Excel Ribbon bar to add this VBA code.

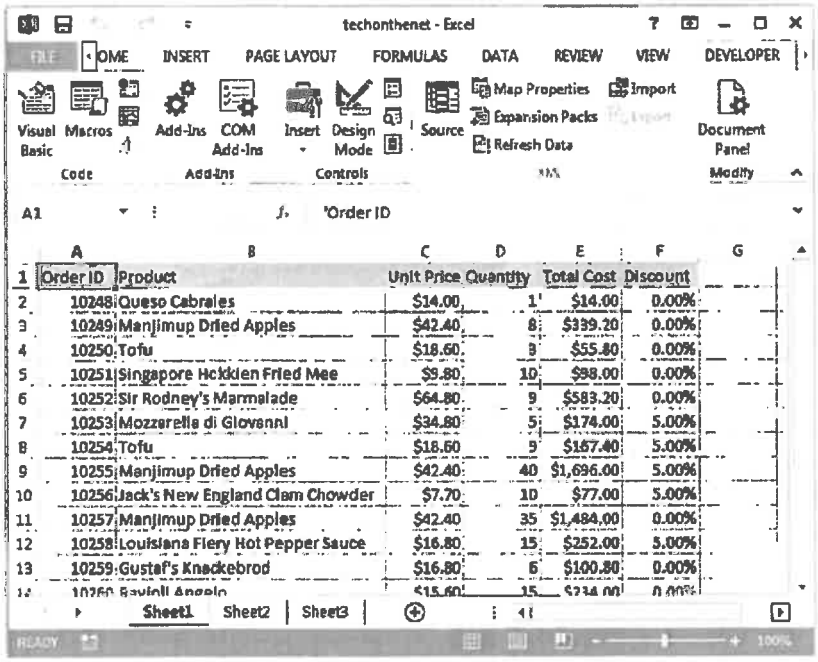
To display the **Developer** tab, click on the File menu and then select **Options** from the dropdown menu.



When the Excel Options window appears, click on the **Customize Ribbon** option on the left. Click on the **Developer** checkbox under the list of Main Tabs on the right. Then click on the OK button.



Now the **Developer** tab should appear in the toolbar at the top of the screen. All of the Developer tab option groups should be available - Code, Add-Ins, Controls, ML, and Modify (see below).



	A	B	C	D	E	F	G
1	Order ID	Product	Unit Price	Quantity	Total Cost	Discount	
2	10248	Queso Cabrales	$14.00	1	$14.00	0.00%	
3	10249	Manjimup Dried Apples	$42.40	8	$339.20	0.00%	
4	10250	Tofu	$18.60	3	$55.80	0.00%	
5	10251	Singapore Hokkien Fried Mee	$9.80	10	$98.00	0.00%	
6	10252	Sir Rodney's Marmalade	$64.80	9	$583.20	0.00%	
7	10253	Mozzarella di Giovanni	$34.80	5	$174.00	5.00%	
8	10254	Tofu	$18.60	9	$167.40	5.00%	
9	10255	Manjimup Dried Apples	$42.40	40	$1,696.00	5.00%	
10	10256	Jack's New England Clam Chowder	$7.70	10	$77.00	5.00%	
11	10257	Manjimup Dried Apples	$42.40	35	$1,484.00	0.00%	
12	10258	Louisiana Fiery Hot Pepper Sauce	$16.80	15	$252.00	5.00%	
13	10259	Gustaf's Knackebrod	$16.80	6	$100.80	0.00%	
14	10260	Ravioli Angelo	$15.60	15	$234.00	0.00%	

The macros are added using the following steps:

1. From the Developer bar, select Visual Basic.

2. In the Project panel shown at the left, double click on the icon for Sheet1(Program Input). Paste the Visual Basic code in panel shown on the right. Now close the Visual Basic Editor and return to DSMore.

To use the Crystal Ball code, make the following change to the workbook. When an Assumption Cell is assigned using Crystal Ball, a hidden worksheet is added to DSMore that will interfere with the operation of the program. The added worksheet must be moved using the following steps.

1. First, in the Visual Basic Editor, in the Properties panel, the Visible property of the added worksheet (sheet10 in this case) is changed to xlSheetVisible.

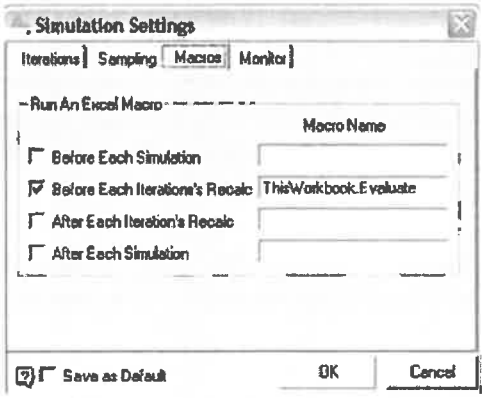
Making Crystal Ball CB_Data worksheet visible

2. Returning to the DSMore workbook, the CB_Data worksheet is now visible. Use a left mouse click and hold over the worksheet tab; the worksheet can be moved to the back of the book, all the way to the left. DSMore will now execute properly.

Moving the CB_Data worksheet

If using @RISK, the following changes will need to be made.

1. Click the Simulation Settings icon and select the Macros tab in the Settings dialog box.
2. Check the box showing when to run the macro and enter the macro's name – for DSMore, the macro's name is "Evaluate."



Editing the @Risk Simulation Settings

Although these instructions are accurate at the time of this publication, the distributors of Crystal Ball and @Risk periodically update their software. In addition to simulating around uncertain parameters, these products can be beneficial in other ways as well, including

optimization or targeting. For further help with Crystal Ball or @Risk, please refer to the manufacturer's user manual.

11 Terminology and Acronyms

Term	Definition
AVERT	Avoided Emissions and Generation Tool
CCF	Hundred cubic feet
DR	Demand Response
DSM	Demand Side Management
DSMore	Demand Side Management Option/Risk Evaluator
EE	Energy Efficiency
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
HVAC	Heating, Ventilation, and Air Conditioning
IA	Integral Analytics, Inc. (the company that makes DSMore)
LED	Light-Emitting Diode
M&V	Measurement and Verification
O&M	Operations and Maintenance
P&L	Profit and Loss
PCT	Participant Cost Test
RIM	Ratepayer Impact Measure Test
SCT	Societal Cost Test
SPM	Standard Practice Manual (referring to the California Standard Practice Manual)
T&D	Transmission and Distribution
TOU	Time of Use
TRC	Total Resource Cost test
UCT	Utility/Program Administrator Cost Test

12 User Manual Appendices

12.1 DSMore Hourly Analysis

To capture the extreme weather/price scenarios and, therefore, the full value of the DSM/DR/EE measures, DSMore uses hourly loads and prices. Using average loads and prices misses the value at peak times, but more importantly, it also understates the total measure value. Using the hourly analysis captures both the peak value and the total value of the measure.

Consider two scenarios, shown in the table below. One uses the *average* load and prices and the other uses *hourly* loads and prices. In both scenarios the average load is the same (2 MW) and the average price is also the same ($50/MWh) over the time period. However, the total value of the hourly analysis is 24% greater ($620 versus $500).

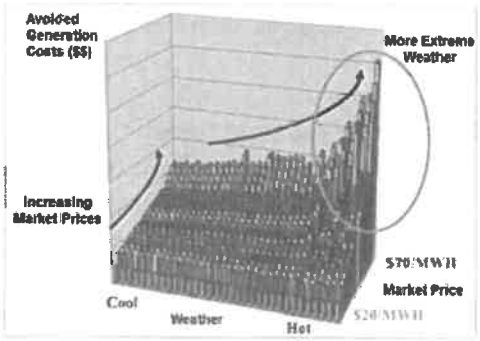
	Average Loads & Prices			Hourly Loads & Prices		
Hour	MW	$/MWh	Total $	MW	$/MWh	Total $
1	2	$50	$100	1	$20	$20
2	2	$50	$100	1	$20	$20
3	2	$50	$100	2	$50	$100
4	2	$50	$100	3	$80	$240
5	2	$50	$100	3	$80	$240
Avg.	*2*	*$50*		*2*	*$50*	
Total			**$500**			**$620**

To perform this hourly analysis, DSMore correlates historic loads and prices to actual historic weather. These relationships (along with the covariances) between loads, weather, and price, and the probability distributions of these relationships, are used within DSMore to calculate over 700 different market/load/price scenarios, each with a unique test result. Since it is too much effort to individually inspect 700 test results, DSMore reports a subset of this distribution for convenience, reducing the number of test results reported in the Excel output to 5 to 9 test results vs. 700+. Of course, the user can simply adhere to one test result, which reflects their preferred set of avoided costs across weather normal conditions too.

12.2 DSMore Scenario Analysis

One of the more versatile functions of DSMore is its ability to simultaneously assess multiple cost-effectiveness assessments over many different avoided cost scenarios. For each of the 30 years of weather scenarios, DSMore assess 21 different electric market/cost/price scenarios. Typically, DSMore uses 33 years of weather as a default number of weather year scenarios, yielding 693 (33 weather scenarios x 21 market

scenarios) cost-effectiveness test results to reflect a full spectrum of possible valuations of a particular program, or about 700 in total. Using slightly more than 30 years ensures that any statistical conclusions or confidence intervals that depend on T-tests are asymptotically equivalent to a Z-test, given that n=30 or more. Therefore, the use of additional weather years does not improve the outcomes, and merely adds unnecessary processing time. The figure below shows how the approximately 700 weather/price scenarios capture the extremes, which an averaging type of avoided cost method will ignore.



Weather & Market Scenarios

The average value of these 700 tests represents an average, weather normal expectation across all possible market price and forward cost scenarios. Selecting one market price scenario (today's value) provides test results for the current market, but across 30+ weather scenarios. Using fewer than 30 years of weather jeopardizes accuracy of the estimation of weather normal and extreme weather effects.

With respect to forward market prices, DSMore uses 21 different forward curves. The first set, or column, of avoided costs or prices, is generally reserved for traditional cost-based avoided costs (i.e., system lambda, avoided production costs), leaving 20 columns for 20 different forward market price curves, ranging from low to high (say, $30/MWh to $70/MWh, on average over 8760 hours). The use of 20 ensures that approximately every 5th percentile of increase in the forward curves can be observed.

DSM-2

DSM Technical Appendix 2: Demand Response Energy Savings Curves

DSMore allows hourly energy savings curve inputs for each future program year and service area. As discussed in Section 4, for demand response, these forward-looking energy savings curves for program years 2027-2029 were estimated in two parts:

- **Non-dispatchable** energy savings curves for demand response (e.g., the energy efficiency savings associated with a smart thermostat), calculated by extrapolating the evaluated 2025 historic savings from Qualus to program years 2027-2029.
- **Dispatchable** energy savings curves for demand response, representing the hourly savings associated with dispatched reliability and economic demand response events, calculated using the demand response dispatch model described below.

The non-dispatchable and dispatchable demand response energy savings curves are then combined for a given measure to simulate the total hourly savings.

Demand Response Dispatch Model

The demand response dispatch model creates forward-looking economic-dispatch hourly energy savings curves for demand response events based on NV Energy's net load forecast and marginal energy cost forecast. The net load forecast refers to the natural load forecast minus must-take supply-side renewable energy. This dispatch model identifies the forecasted highest net load days and highest marginal energy cost days to predict reliability and economic demand response dispatch events and the resulting energy savings curves for cost-effectiveness analysis in DSMore.

The inputs to the dispatch model include NV Energy's net load forecast, marginal energy cost forecast, number of reliability and economic demand response dispatch events per year, number of hours per event, maximum demand response load reduction, and effective load carrying capability (ELCC) adjustment factor. The ELCC adjustment factor converts the maximum demand response emergency capacity into a measure of the equivalent supply-side capacity that could be offset by demand response, estimated as 0.65 for the purposes of generating energy savings curves, based on NV Energy's historic demand response performance during a typical economic event.

First, the model identifies the must-dispatch days in each year by identifying the total net system peak across both NPC and SPPC, then subtracting the ELCC-adjusted demand response load reduction (i.e., the maximum demand response load reduction reduced by the ELCC adjustment factor) to identify a net load threshold. The model assumes perfect foresight that demand response events are dispatched on all days with a net load above this net load threshold.

Next, the model identifies the remaining dispatch days. For the purposes of this IRP, NV Energy used the NPC historical average number of events during the timeframe 2020-2025 and assumed a maximum of 30 dispatch days per year in each service area, with 1 dispatch event per day. Thus, the dispatch model subtracts the number of identified must-dispatch days (e.g., 2 days) from 30 days to get the remaining number of dispatch days (e.g., 28 days). After excluding must-dispatch dates, the model identifies daily peak hours by selecting, for each remaining day, the single hour with the maximum net load, yielding one peak-hour observation per day. The daily peak observations are then ranked in descending order based on

cost, and the highest-cost days are selected as remaining-dispatch days, up to 28 days in this example. For each selected remaining dispatch day, the model defines a three-hour dispatch window consisting of the peak hour and the adjacent hours (peak hour −1 through peak hour +1). This approach prioritizes dispatch on days with the highest avoided energy costs and therefore identifies the most economically efficient dispatch opportunities.

For each dispatched demand response event, the model assumes that the event hours include the hour before that day's peak load, the peak load hour, and the hour after the day's peak load—for a total number of three hours per event. This aligns with NV Energy's expected practice of dispatching three-hour demand response events at the portfolio or VPP resource level using multiple phases of two-hour dispatch of individual resources to achieve an optimized shape that maximizes avoided capacity.

This process results in a demand response dispatch schedule of 30 events per year of 3-hour-long dispatch for each service area, with all events occurring between hour ending 17 and hour ending 21 in the months of June through September. Of these events, the top 3 events for each service area and year are assumed to be reliability-based events, where all DR programs that include Level I "Reliability DR" demand response programs are called. The remaining 27 events for each service area and year are then considered economic-based events, where all DR programs that include Level II "Economic DR" are called. The Introduction to Section 9 of the DSM plan narrative describes these participation levels and the corresponding programs in more detail.

The demand response load reductions are then mapped to the dispatch schedule. For each 3-hour event, the demand response savings in Hour 2 are assumed to equal the ELCC-adjusted demand response load reduction for either reliability-based or economic-based events. For example, in Nevada Power Company's service area in 2027, there are 240 MW of reliability and economic maximum load reduction, providing 156 MW of ELCC-adjusted demand response after adjusting by 0.65. Thus, the demand response energy savings curves assume that 156 MW of ELCC-adjusted demand response will be called in Hour 2 of each demand response event.

Hours 1 and 3 of the demand response events are based on conditional logic relative to the "event threshold", which is the new net load resulting from the net load in Hour 2 of that particular event minus the ELCC-adjusted demand response load reduction. When the net load of Hours 1 or 3 is above the event threshold, the energy savings in that hour is equal to the difference between that hour's net load and the event threshold. When the net load of Hours 1 or 3 is below the event threshold, the energy savings in that hour is equal to an assumed ramp rate of 20% of the ELCC-adjusted demand response load reduction. The intent of this logic is to mimic demand response dispatch that captures the full ELCC value of the resource by effectively shaving the net load across the 3-hour event window to the event threshold, plus acknowledgement of ramping needed in the hour before and after the event to achieve that full ELCC value.

This is used to develop energy savings curves for forward-looking demand response dispatch that are passed to DSMore in the form of hourly percentages for a given year and service area. This analysis was also used to determine the average marginal cost of energy during expected future DR events, which as then used to estimate energy bill credits paid to customer under the Energy Grid Service Tariff Rider ("GSR-E") filed in Advice Letter 557 (Docket Nos. 25-10012 and 25-10013).

Future Recommendations

In future iterations of this approach, NV Energy intends to migrate from the conditional logic approach to a seasonal or annual optimization approach leveraging more detailed device performance data collected via measurement and verification events. The Company will also investigate a more formal analysis of the maximum demand response load reduction and ELCC adjustment factor.

DSM-3

Nevada Power - Energy Education

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Participants	Number of Units or Kits	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
MeFures	**$432,189**	**$54,734**	**$377,455**	**$0**						
Energy Education Events					75,899		N/A	-		100.0%
Total					**75,899**	-	N/A	-	-	**100.0%**

Sierra - Energy Education

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Participants	Number of Units or Kits	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$222,899**	**$54,596**	**$168,302**	**$0**						
Energy Education Events					108,330		N/A	N/A	N/A	N/A
Total					**108,330**	-	N/A	**N/A**	N/A	**N/A**

Name:	**Energy Education**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved**
NEB Total Resource 2.0 (NTRC 2.0)	$0	$432,189	($432,189)	0.00	N/A
NEB Total Resource Cost (NTRC)	$0	$432,189	($432,189)	0.00	N/A
Total Resource Cost (TRC)	$0	$432,189	($432,189)	0.00	N/A
Utility Cost Test (UCT)	$0	$432,189	($432,189)	0.00	N/A
Participant Cost Test (PCT)	$0	$0	$0	N/A	N/A
Ratepayer Impact (RIM)	$0	$432,189	($432,189)	0.00	N/A
Societal Cost (SCT)	$0	$432,189	($432,189)	0.00	N/A

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$432,189	$0	$0	$432,189
Electric Benefits ($)	$0	$0	$0	$0
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	0	0	0	0
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Energy Education**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$0	$222,899	($222,899)	0.00	N/A
NEB Total Resource Cost (NTRC)	$0	$222,899	($222,899)	0.00	N/A
Total Resource Cost (TRC)	$0	$222,899	($222,899)	0.00	N/A
Utility Cost Test (UCT)	$0	$222,899	($222,899)	0.00	N/A
Participant Cost Test (PCT)	$0	$0	$0	N/A	N/A
Ratepayer Impact (RIM)	$0	$222,899	($222,899)	0.00	N/A
Societal Cost (SCT)	$0	$222,899	($222,899)	0.00	N/A

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$222,899	$0	$0	$222,899
Electric Benefits ($)	$0	$0	$0	$0
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	0	0	0	0
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Nevada Power - Energy Reports

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$597,559**	**$82,317**	**$515,242**					
Energy Reports				122,032	161.00	19,647,152	1.0	100.0%
Total				**122,032**	161.00	**19,647,152**	**1.0**	**100.0%**

Sierra - Energy Reports

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number o$G Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$532,115**	**$49,636**	**$482,480**					
Energy Reports				65,711	139.00	9,133,829	1.0	100.0%
Total				**65,711**	139.00	**9,133,829**	**1.0**	**100.0%**

Name:	**Home Energy Reports**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,460,574	$597,559	$2,863,015	5.79	$0.029
NEB Total Resource Cost (NTRC)	$2,260,157	$597,559	$1,662,598	3.78	$0.029
Total Resource Cost (TRC)	$1,965,012	$597,559	$1,367,453	3.29	$0.029
Utility Cost Test (UCT)	$1,965,012	$597,559	$1,367,453	3.29	$0.029
Participant Cost Test (PCT)	$2,203,078	$0	$2,203,078	N/A	$0.000
Ratepayer Impact (RIM)	$1,965,012	$2,800,637	($835,625)	0.70	$0.137
Societal Cost (SCT)	$3,511,232	$597,559	$2,913,673	5.88	$0.029

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$597,559	$0	$0	$597,559
Electric Benefits ($)	$1,938,843	$0	$0	$1,938,843
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,477,240	0	0	20,477,240
Critical Peak Hour Demand (kW)	5,176	0	0	5,176
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,733,736	$532,115	$1,201,621	3.26	$0.055
NEB Total Resource Cost (NTRC)	$1,145,294	$532,115	$613,179	2.15	$0.055
Total Resource Cost (TRC)	$995,821	$532,115	$463,706	1.87	$0.055
Utility Cost Test (UCT)	$995,821	$532,115	$463,706	1.87	$0.055
Participant Cost Test (PCT)	$981,317	$0	$981,317	N/A	$0.000
Ratepayer Impact (RIM)	$995,821	$1,513,432	($517,611)	0.66	$0.157
Societal Cost (SCT)	$1,758,365	$532,115	$1,226,250	3.30	$0.055

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$532,115	$0	$0	$532,115
Electric Benefits ($)	$990,168	$0	$0	$990,168
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	9,636,548	0	0	9,636,548
Critical Peak Hour Demand (kW)	2,977	0	0	2,977
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Nevada Power - Energy Assessments and Direct Install

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$2,467,170**	**$285,541**	**$2,181,628**	**-**					
Online Energy Assessments					6,131	186.15	1,141,286	1.0	100.0%
In-home Energy Assessments					4,778	322.16	1,539,280	2.0	100.0%
HVAC Filter					3,970	178.40	708,248	5.0	90.0%
LED Bulbs					9,592	28.23	270,817	9.4	82.0%
LED Photocell					412	70.00	28,840	3.4	100.0%
Advanced Power Strips					1,737	163.16	283,406	10.0	95.0%
Home Improvements Channel					114	109.73	12,509	17.3	100.0%
Total					**26,734**	**149.04**	**3,984,386**	**3.25**	**96.6%**

Sierra - Energy Assessments and Direct Install

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$987,384**	**142,747.81**	**844,636.61**	**-**					
Online Energy Assessments					1,717	173.34	297,625	1.0	100.0%
In-home Energy Assessments					785	225.41	176,947	2.0	100.0%
HVAC Filter					114	99.40	11,332	5.0	90.0%
LED Bulbs					1,497	28.25	42,284	9.4	90.0%
LED Photocell					92	68.60	6,311	3.4	100.0%
Advanced Power Strips					410	163.16	66,895	10.0	95.0%
Home Improvements Channel					111	88.86	9,863	15.0	100.0%
Total					**4,726**	**129.34**	**611,257**	**3.10**	**98.6%**

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$2,168,448	$2,467,170	($298,721)	0.88	$0.191
NEB Total Resource Cost (NTRC)	$1,458,353	$2,467,170	($1,008,817)	0.59	$0.191
Total Resource Cost (TRC)	$1,264,833	$2,467,170	($1,202,336)	0.51	$0.191
Utility Cost Test (UCT)	$1,264,833	$2,467,170	($1,202,336)	0.51	$0.191
Participant Cost Test (PCT)	$1,366,681	$0	$1,366,681	N/A	$0.000
Ratepayer Impact (RIM)	$1,264,833	$3,741,159	($2,476,325)	0.34	$0.289
Societal Cost (SCT)	$2,194,790	$2,467,170	($272,379)	0.89	$0.191

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$2,467,170	$0	$0	$2,467,170
Electric Benefits ($)	$437,801	$0	$0	$1,257,807
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,014,433	0	0	12,929,874
Critical Peak Hour Demand (kW)	1,341	0	0	1,341
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.3000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	96.64%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$273,090	$987,384	($714,294)	0.28	$0.506
NEB Total Resource Cost (NTRC)	$164,425	$987,384	($822,959)	0.17	$0.506
Total Resource Cost (TRC)	$142,384	$987,384	($845,000)	0.14	$0.506
Utility Cost Test (UCT)	$142,384	$987,384	($845,000)	0.14	$0.506
Participant Cost Test (PCT)	$191,424	$0	$191,424	N/A	$0.000
Ratepayer Impact (RIM)	$142,384	$1,171,343	($1,028,959)	0.12	$0.601
Societal Cost (SCT)	$277,180	$987,384	($710,204)	0.28	$0.506

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$987,384	$0	$0	$987,384
Electric Benefits ($)	$62,871	$0	$0	$141,701
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	635,755	0	0	1,949,753
Critical Peak Hour Demand (kW)	183	0	0	183
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.4800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	98.57%		

Nevada Power - Residential Home Energy Saver

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,906,692**	**$254,600**	**$1,820,315**	**$831,778**	**$0**						
Advanced Power Strip						25,391	163.64	4,155,067	10	$51	74.0%
Advanced Power Strip (Marketplace)						327	163.64	53,511	10	$51	74.0%
ENERGY STAR® Clothes Washer						642	119.80	76,911	14	$59	74.0%
ENERGY STAR® Air Purifier						4,577	139.32	637,679	9	$62	74.0%
ENERGY STAR® Air Purifier (Marketplace)						100	138.77	13,877	9	$62	74.0%
Recalibrated Pumps (Winterization)						2,303	2,152.29	4,956,716	1	$150	90.0%
Recalibrated Pumps (Peak Avoidance)						42	2,834.81	119,062	2	$150	90.0%
Totals						**33,382**	**299.95**	**10,012,823**	**4.98**		**82.1%**

Sierra - Residential Home Energy Saver

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$1,136,853**	**$101,690**	**$465,910**	**$569,253**	**$0**						
Advanced Power Strip						17,430	163.64	2,852,303.00	10	$62	74.0%
Advanced Power Strip (Marketplace)						98	163.64	16,037.00	10	$62	74.0%
ENERGY STAR® Clothes Washer						652	113.77	74,175.00	14	$59	74.0%
ENERGY STAR® Air Purifier						4,059	140.84	571,668.00	9	$62	74.0%
ENERGY STAR® Air Purifier (Marketplace)						43	140.00	6,020.00	9	$62	74.0%
Engine Block Heater Controller						1,320	553.51	730,634.00	10	$170	100.0%
Totals						**23,602**	**180.10**	**4,250,837**	**9.94**		**78.5%**

Name:	**Home Energy Saver**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,360,946	$4,436,601	$924,345	1.21	$0.104
NEB Total Resource Cost (NTRC)	$2,971,817	$4,436,601	($1,464,785)	0.67	$0.104
Total Resource Cost (TRC)	$2,555,742	$4,436,601	($1,880,859)	0.58	$0.104
Utility Cost Test (UCT)	$2,555,742	$2,906,692	($350,950)	0.88	$0.068
Participant Cost Test (PCT)	$6,067,160	$1,991,220	$4,075,940	3.05	$0.047
Ratepayer Impact (RIM)	$2,555,742	$6,874,574	($4,318,832)	0.37	$0.161
Societal Cost (SCT)	$5,441,542	$4,436,601	$1,004,941	1.23	$0.104

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$2,906,692	$0	$0	$2,906,692
Electric Benefits ($)	$628,467	$0	$0	$2,485,918
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	8,576,511	0	0	42,715,471
Critical Peak Hour Demand (kW)	1,218	0	0	1,218
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	82.13%		

Name:	**Home Energy Saver**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$4,092,637	$2,382,104	$1,710,534	1.72	$0.068
NEB Total Resource Cost (NTRC)	$2,109,695	$2,382,104	($272,408)	0.89	$0.068
Total Resource Cost (TRC)	$1,834,518	$2,382,104	($547,586)	0.77	$0.068
Utility Cost Test (UCT)	$1,834,518	$1,136,853	$697,665	1.61	$0.032
Participant Cost Test (PCT)	$4,610,536	$1,603,928	$3,006,608	2.87	$0.046
Ratepayer Impact (RIM)	$1,834,518	$4,309,137	($2,474,619)	0.43	$0.123
Societal Cost (SCT)	$4,157,445	$2,382,104	$1,775,342	1.75	$0.068

Utility Savings & Costs*		**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)		$1,136,853	$0	$0	$1,136,853
Electric Benefits ($)		$247,728	$0	$0	$1,870,009
Gas Benefits ($)		$0	$0	$0	$0
Incremental Energy & Demand Savings:					
	Electric Savings (kWh)	3,521,064	0	0	34,991,152
	Critical Peak Hour Demand (kW)	386	0	0	386
	Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	78.47%		

Nevada Power - Residential HVAC

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,338,416**	**$288,916**	**$811,373**	**1,238,127.67**						
Low Income - AC Tune Up					1,081	1,044.17	1,128,748	5	$0	100.0%
Low Income - HP Tune Up					620	1,336.51	828,636	5	$0	100.0%
Retrofit - AC Tune Up					1,763	1,087.58	1,917,407	5	$100	76.0%
Retrofit - HP Tune Up					1,541	1,366.55	2,105,854	5	$100	76.0%
Retrofit - AC Replacement					184	446.37	82,132	18	$1,202	72.0%
Retrofit - HP Replacement					62	557.79	34,583	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					9	1,634.67	14,712	10	$690	74.0%
Totals					**5,260**	**1,161.99**	**6,112,070**	**5.21**		**83.6%**

Sierra - Residential HVAC

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$570,483**	**86,934.04**	**147,291.31**	**336,257.85**						
Retrofit - AC Tune Up					1,436	205.73	295,432	5	$100	80.0%
Retrofit - HP Tune Up					1	796.00	796	5	$100	80.0%
ENERGY STAR Heat Pump Water Heater					14	2,089.50	29,253	10	$690	74.0%
Cold Climate Heat Pump					17	(4,837.82)	(82,243)	15	$7,500	72.0%
Totals					**1,468**	**165.69**	**243,238**	**2.57**	**$98**	**82.0%**

Name:	**Residential HVAC**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,242,168	$2,807,014	$2,435,154	1.87	$0.101
NEB Total Resource Cost (NTRC)	$3,875,510	$2,807,014	$1,068,496	1.38	$0.101
Total Resource Cost (TRC)	$3,332,912	$2,807,014	$525,898	1.19	$0.101
Utility Cost Test (UCT)	$3,332,912	$2,338,416	$994,496	1.43	$0.084
Participant Cost Test (PCT)	$4,525,576	$632,302	$3,893,274	7.16	$0.023
Ratepayer Impact (RIM)	$3,332,912	$5,073,973	($1,741,061)	0.66	$0.183
Societal Cost (SCT)	$5,297,564	$2,807,014	$2,490,550	1.89	$0.101

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$2,338,416	$0	$0	$2,338,416
Electric Benefits ($)	$724,437	$0	$0	$3,293,574
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	5,324,036	0	0	27,737,279
Critical Peak Hour Demand (kW)	2,538	0	0	2,538
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	83.60%		

Name:	**Residential HVAC**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$314,950	$784,392	($469,442)	0.40	$1.448
NEB Total Resource Cost (NTRC)	$278,106	$784,392	($506,285)	0.35	$1.448
Total Resource Cost (TRC)	$241,831	$784,392	($542,560)	0.31	$1.448
Utility Cost Test (UCT)	$241,831	$570,483	($328,652)	0.42	$1.053
Participant Cost Test (PCT)	$404,465	$280,860	$123,605	1.44	$0.519
Ratepayer Impact (RIM)	$241,831	$632,235	($390,404)	0.38	$1.167
Societal Cost (SCT)	$316,849	$784,392	($467,543)	0.40	$1.448

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$570,483	$0	$0	$570,483
Electric Benefits ($)	$76,091	$0	$0	$240,411
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	210,439	0	0	541,529
Critical Peak Hour Demand (kW)	382	0	0	382
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	81.98%		

Nevada Power - Residential Codes and New Construction

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units or Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$1,261,553**	**$156,263**	**$889,590**	**$215,700**	**$0**						
New Construction						2,917	1,755	5,119,568	15.0	$891	60.0%
Total						**2,917**	**1,755**	**5,119,568**	**15.0**	**$891**	**60.0%**

Sierra - Residential Codes and New Construction

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units or Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$17,023**	**$704**	**$16,320**	**$0**	**$0**						
New Construction						0	-	-	15.0	$891	80.0%
Total						**0**	**-**	**0**	**15.0**	**$891**	**80.0%**

Name:	**Residential Codes & New Construction**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$6,633,056	$2,821,107	$3,811,950	2.35	$0.059
NEB Total Resource Cost (NTRC)	$4,196,864	$2,821,107	$1,375,757	1.49	$0.059
Total Resource Cost (TRC)	$3,649,447	$2,821,107	$828,340	1.29	$0.059
Utility Cost Test (UCT)	$3,649,447	$1,261,553	$2,387,893	2.89	$0.026
Participant Cost Test (PCT)	$6,881,194	$2,599,255	$4,281,939	2.65	$0.054
Ratepayer Impact (RIM)	$3,649,447	$5,260,850	($1,611,403)	0.69	$0.109
Societal Cost (SCT)	$6,709,995	$2,821,107	$3,888,889	2.38	$0.059

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$1,261,553	$0	$0	$1,261,553
Electric Benefits ($)	$343,877	$0	$0	$3,587,731
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,204,537	0	0	48,068,053
Critical Peak Hour Demand (kW)	1,046	0	0	1,046
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	60.00%		

Name:	**Residential Codes & New Construction**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$0	$17,023	($17,023)	0.00	N/A
NEB Total Resource Cost (NTRC)	$0	$17,023	($17,023)	0.00	N/A
Total Resource Cost (TRC)	$0	$17,023	($17,023)	0.00	N/A
Utility Cost Test (UCT)	$0	$17,023	($17,023)	0.00	N/A
Participant Cost Test (PCT)	$0	$0	$0	N/A	N/A
Ratepayer Impact (RIM)	$0	$17,023	($17,023)	0.00	N/A
Societal Cost (SCT)	$0	$17,023	($17,023)	0.00	N/A

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$17,023	$0	$0	$17,023
Electric Benefits ($)	$0	$0	$0	$0
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	0	0	0	0
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Nevada Power - Low Income QAR Measures									
2025	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$2,442,285**	**$364,561**	**$2,077,725**	$ -					
Refrigerator (QAR)					758	294.75	223,422	14.00	100.0%
Advanced Smart Strips (QAR)					1,046	178.75	186,971	10.00	100.0%
Washer (QAR)					353	194.58	68,687	14.00	100.0%
Dryer (QAR)					107	390.37	41,770	14.00	100.0%
LED Lighting (QAR)					579	33.04	19,130	8.17	100.0%
Dishwasher (QAR)					204	43.10	8,792	11.00	100.0%
Freezer (QAR)					23	108.83	2,503	14.00	100.0%
Weatherization Water Heater Blanket					80	81.00	6,480	13.00	100.0%
Weatherization Air Sealing					80	49.00	3,920	11.00	100.0%
Weatherization Pipe Wrap (Water Heater)					80	46.50	3,720	13.00	100.0%
Total					**3,310**	**170.81**	**565,395**	**12.39**	**100.0%**

Sierra - Low Income QAR Measures

2025	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$1,043,500**	**127,570.80**	**915,929.36**	-					
Refrigerator (QAR)					212	276.14	58,542	14.00	100.0%
Advanced Smart Strips (QAR)					376	167.00	62,792	10.00	100.0%
Washer (QAR)					165	194.58	32,106	14.00	100.0%
Dryer (QAR)					89	368.73	32,817	14.00	100.0%
LED Lighting (QAR)					181	33.04	5,980	8.17	100.0%
Dishwasher (QAR)					50	43.10	2,155	11.00	100.0%
Freezer (QAR)					8	99.13	793	14.00	100.0%
Weatherization Air Sealing					96	49.00	4,704	11.00	100.0%
Total					**1,177**	**169.83**	**199,889**	**12.50**	**100.0%**

Name:	**Low Income**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$885,852	$2,442,285	($1,556,433)	0.36	$0.334
NEB Total Resource Cost (NTRC)	$509,529	$2,442,285	($1,932,757)	0.21	$0.334
Total Resource Cost (TRC)	$407,623	$2,442,285	($2,034,663)	0.17	$0.334
Utility Cost Test (UCT)	$407,623	$2,442,285	($2,034,663)	0.17	$0.334
Participant Cost Test (PCT)	$633,255	$0	$633,255	N/A	$0.000
Ratepayer Impact (RIM)	$407,623	$3,075,541	($2,667,918)	0.13	$0.421
Societal Cost (SCT)	$898,539	$2,442,285	($1,543,746)	0.37	$0.334

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$2,442,285	$0	$0	$2,442,285
Electric Benefits ($)	$41,737	$0	$0	$382,974
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	589,700	0	0	7,305,635
Critical Peak Hour Demand (kW)	87	0	0	87
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$308,664	$1,043,500	($734,836)	0.30	$0.397
NEB Total Resource Cost (NTRC)	$174,979	$1,043,500	($868,521)	0.17	$0.397
Total Resource Cost (TRC)	$139,983	$1,043,500	($903,517)	0.13	$0.397
Utility Cost Test (UCT)	$139,983	$1,043,500	($903,517)	0.13	$0.397
Participant Cost Test (PCT)	$230,160	$0	$230,160	N/A	$0.000
Ratepayer Impact (RIM)	$139,983	$1,273,660	($1,133,676)	0.11	$0.484
Societal Cost (SCT)	$313,165	$1,043,500	($730,335)	0.30	$0.397

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$1,043,500	$0	$0	$1,043,500
Electric Benefits ($)	$15,056	$0	$0	$135,365
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	211,007	0	0	2,629,365
Critical Peak Hour Demand (kW)	31	0	0	31
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Nevada Power - Residential DR Build 2025

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Rebates (Non-Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)						10,706	1.190	12,745.00	289.94	3,104,103	10.20	10.00	95.0%
	Battery Storage						30	7.874	236.22	128.87	3,866	6.72	11.98	100.0%
	Pool Pumps						52	0.759	39.49	3.35	174	6.72	11.98	100.0%
	Water Heaters						158	2.368	374.17	43.09	6,808	6.72	11.98	100.0%
Year	Totals						**10,946**	**1.224**	**13,395**	**284.57**	**3,114,951**		**10.0**	95.0%
2025	**$7,302,501**	**$687,293**	**$6,355,933**	**$0**	**$ 252,075**	**$ 7,200**								
2026	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2027	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2028	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2029	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2030	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2031	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2032	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2033	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2034	**$884,500**	$84,000	$673,000		$120,300	$ 7,200								
2035	**$15,200**	$0	$8,000		$0	$ 7,200								
2036	**$15,200**	$0	$8,000		$0	$ 7,200								

Sierra - Residential DR Build 2025

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Rebates (Non-Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)						2,248	1.274	2,864.75	204.50	459,714	33.12	10.0	91.0%
	Battery Storage						18	8.874	159.73	90.17	1,623	16.09	11.6	100.0%
	Water Heaters						17	1.920	32.64	(4.71)	(80)	16.09	11.6	100.0%
Year	Totals						**2,283**	**1.339**	**3,057**	**202.04**	**461,257**		**10.0**	**91.0%**
2025	**$2,063,103**	**$296,779**	**$1,499,133**	**$0**	**$ 265,051**	**$ 2,140**								
2026	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2027	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2028	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2029	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2030	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2031	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2032	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2033	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2034	**$121,140**	$12,000	$104,000		$3,000	$ 2,140								
2035	**$21,140**	$12,000	$7,000		$0	$ 2,140								
2036	**$21,140**	$12,000	$7,000		$0	$ 2,140								

Name:	**Residential DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$29,247,246	$11,896,219	$17,351,027	2.46	$0.385
NEB Total Resource Cost (NTRC)	$27,596,977	$11,896,219	$15,700,758	2.32	$0.385
Total Resource Cost (TRC)	$23,993,198	$11,896,219	$12,096,979	2.02	$0.385
Utility Cost Test (UCT)	$22,960,668	$12,967,839	$9,992,830	1.77	$0.420
Participant Cost Test (PCT)	$5,414,277	$0	$5,414,277	N/A	$0.000
Ratepayer Impact (RIM)	$22,960,668	$17,083,112	$5,877,557	1.34	$0.553
Societal Cost (SCT)	$29,357,090	$11,883,615	$17,473,475	2.47	$0.385

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$7,306,701	$884,500	$884,500	$15,297,601
Electric Benefits ($)	$2,764,135	$2,883,809	$2,983,776	$22,865,476
Gas Benefits ($)	$88,288	$88,288	$88,288	$653,208
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,086,706	3,086,706	3,086,706	30,889,771
Critical Peak Hour Demand (kW)	14,248	14,248	14,248	14,248
Gas Savings (therms)	110,813	110,813	110,813	1,111,354

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.02%		

Name:	**Residential DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,813,326	$2,581,470	$3,231,856	2.25	$0.580
NEB Total Resource Cost (NTRC)	$5,572,149	$2,581,470	$2,990,679	2.16	$0.580
Total Resource Cost (TRC)	$4,844,926	$2,581,470	$2,263,456	1.88	$0.580
Utility Cost Test (UCT)	$4,572,903	$2,859,788	$1,713,115	1.60	$0.643
Participant Cost Test (PCT)	$1,250,833	$0	$1,250,833	N/A	$0.000
Ratepayer Impact (RIM)	$4,572,903	$3,723,617	$849,286	1.23	$0.837
Societal Cost (SCT)	$5,834,146	$2,557,616	$3,276,530	2.28	$0.575

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$2,063,103	$121,140	$121,140	$3,195,643
Electric Benefits ($)	$553,298	$578,790	$593,221	$4,582,207
Gas Benefits ($)	$31,049	$31,049	$31,049	$230,352
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	444,523	444,523	444,523	4,448,647
Critical Peak Hour Demand (kW)	3,123	3,123	3,123	3,123
Gas Savings (therms)	75,017	75,017	75,017	751,296

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.03%		

Nevada Power - Residential DR Manage 2025

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/ unit)	Effective Useful Life	Net-to-Gross**
Total						127,355	0.9441	120,241	217.93	27,755,029	10.2000	5.20	95.0%
2025	**$8,205,116**	**$789,450**	**$6,280,933**	**$0**	**$1,134,733**								
2026	**$8,205,000**	$789,000	$6,281,000		$1,135,000								
2027	**$8,205,000**	$789,000	$6,281,000		$1,135,000								
2028	**$8,205,000**	$789,000	$6,281,000		$1,135,000								
2029	**$8,205,000**	$789,000	$6,281,000		$1,135,000								

Sierra - Residential DR Manage 2025

Measure Cost per Unit

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/ unit)	Effective Useful Life	Net-to-Gross**
Total						18,287	1.1455	20,948.00	189.63	3,467,744	33.12	6.50	91.0%
2025	**$822,983**	**$87,520**	**$710,877**	**$0**	**$24,586**								
2026	**$824,000**	$88,000	$711,000		$25,000								
2027	**$824,000**	$88,000	$711,000		$25,000								
2028	**$824,000**	$88,000	$711,000		$25,000								
2029	**$824,000**	$88,000	$711,000		$25,000								
2030	**$824,000**	$88,000	$711,000		$25,000								
2031	**$824,000**	$88,000	$711,000		$25,000								

Name:	**Residential DR Manage**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2033	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$147,562,151	$30,817,476	$116,744,675	4.79	$0.224
NEB Total Resource Cost (NTRC)	$140,178,828	$30,817,476	$109,361,352	4.55	$0.224
Total Resource Cost (TRC)	$121,873,437	$30,817,476	$91,055,961	3.95	$0.224
Utility Cost Test (UCT)	$114,761,019	$35,698,663	$79,062,357	3.21	$0.260
Participant Cost Test (PCT)	$28,844,919	$0	$28,844,919	N/A	$0.000
Ratepayer Impact (RIM)	$114,761,019	$58,410,309	$56,350,711	1.96	$0.425
Societal Cost (SCT)	$148,214,768	$30,760,739	$117,454,029	4.82	$0.224

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$8,205,116	$8,205,000	$8,205,000	$41,025,116
Electric Benefits ($)	$24,748,539	$25,829,615	$26,703,806	$114,308,319
Gas Benefits ($)	$1,034,175	$1,034,175	$1,034,175	$4,499,519
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	27,502,132	27,502,132	27,502,132	137,510,659
Critical Peak Hour Demand (kW)	127,573	127,573	127,573	127,573
Gas Savings (therms)	1,299,021	1,299,021	1,299,021	6,495,105

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.00%		

Name:	**Residential DR Manage**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2031	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$29,931,672	$4,564,806	$25,366,867	6.56	$0.195
NEB Total Resource Cost (NTRC)	$28,664,942	$4,564,806	$24,100,136	6.28	$0.195
Total Resource Cost (TRC)	$24,923,869	$4,564,806	$20,359,063	5.46	$0.195
Utility Cost Test (UCT)	$23,234,464	$4,704,957	$18,529,507	4.94	$0.201
Participant Cost Test (PCT)	$5,705,986	$0	$5,705,986	N/A	$0.000
Ratepayer Impact (RIM)	$23,234,464	$9,767,853	$13,466,611	2.38	$0.418
Societal Cost (SCT)	$30,059,139	$4,562,593	$25,496,546	6.59	$0.195

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$822,983	$824,000	$824,000	$5,766,983
Electric Benefits ($)	$3,783,827	$3,959,783	$4,057,570	$23,287,861
Gas Benefits ($)	$250,494	$250,494	$250,494	$1,430,606
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,340,018	3,340,018	3,340,018	23,380,124
Critical Peak Hour Demand (kW)	21,268	21,268	21,268	21,268
Gas Savings (therms)	605,667	605,667	605,667	4,239,672

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Nevada Power - Business Energy Services

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$13,749,189**	**$1,531,944**	**$6,175,473**	**$0**	**$6,041,773**						
Commercial Measures					$6,041,773	103,077	1,000	103,076,878	12.0	$187.04	75.0%
Total					**$6,041,773**	**103,077**	**1,000**	**103,076,878**	**12.0**	**$187**	**75.0%**

Sierra - Business Energy Serivces

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$4,705,570**	**$578,745**	**$2,389,795**	**$0**	**$1,737,030**						
Commercial Measures					$1,737,030	33,137	1,000	33,137,076	12.9	$175.77	75.0%
Total					**$1,737,030**	**33,137**	**1,000**	**33,137,076**	**12.9**	**$176**	**75.0%**

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$107,447,035	$23,677,823	$83,769,212	4.54	$0.024
NEB Total Resource Cost (NTRC)	$56,564,243	$23,677,823	$32,886,420	2.39	$0.024
Total Resource Cost (TRC)	$51,422,039	$23,677,823	$27,744,216	2.17	$0.024
Utility Cost Test (UCT)	$51,422,039	$13,749,189	$37,672,850	3.74	$0.014
Participant Cost Test (PCT)	$103,386,946	$19,279,952	$84,106,995	5.36	$0.020
Ratepayer Impact (RIM)	$51,422,039	$86,758,069	($35,336,030)	0.59	$0.090
Societal Cost (SCT)	$109,192,287	$22,167,380	$87,024,907	4.93	$0.023

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$13,749,189	$0	$0	$13,749,189
Electric Benefits ($)	$5,054,125	$0	$0	$47,194,355
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	80,585,273	0	0	967,023,274
Critical Peak Hour Demand (kW)	9,540	0	0	9,540
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	75.00%		

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$37,330,164	$7,771,191	$29,558,973	4.80	$0.023
NEB Total Resource Cost (NTRC)	$20,518,335	$7,771,191	$12,747,143	2.64	$0.023
Total Resource Cost (TRC)	$18,653,032	$7,771,191	$10,881,840	2.40	$0.023
Utility Cost Test (UCT)	$18,653,032	$4,705,570	$13,947,461	3.96	$0.014
Participant Cost Test (PCT)	$34,112,810	$5,824,525	$28,288,285	5.86	$0.017
Ratepayer Impact (RIM)	$18,653,032	$28,987,405	($10,334,373)	0.64	$0.085
Societal Cost (SCT)	$37,932,286	$7,336,934	$30,595,352	5.17	$0.022

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$4,705,570	$0	$0	$4,705,570
Electric Benefits ($)	$1,777,111	$0	$0	$17,172,582
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	26,196,394	0	0	340,553,128
Critical Peak Hour Demand (kW)	3,906	0	0	3,906
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	75.00%		

Nevada Power - Energy Smart Schools

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$1,366,434**	**$181,308**	**$793,085**	**$392,041**						
CEI*					12,314	1,000	12,314,349	1.0	$0.00	71.0%
Capital Projects					7,994	1,000	7,994,327	9.13	$243.93	77.0%
Total					**20,309**	**1,000**	**20,308,676**	**4.36**		**73.4%**

Sierra - Energy Smart Schools

2025	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$788,721**	**$85,909**	**$527,249**	**$175,563**						
SEM (Behavioral)					5,110	1,000	5,109,714	1.0	$3.76	87.0%
Capital improvement projects					887	1,000	886,532	13.55	$167.58	64.0%
Total					**5,996**	**1,000**	**5,996,246**	**2.4**		**83.6%**

Name:	**Schools Program**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$8,167,307	$2,867,995	$5,299,312	2.85	$0.043
NEB Total Resource Cost (NTRC)	$5,161,359	$2,867,995	$2,293,364	1.80	$0.043
Total Resource Cost (TRC)	$4,175,181	$2,867,995	$1,307,187	1.46	$0.043
Utility Cost Test (UCT)	$4,175,181	$1,366,434	$2,808,747	3.06	$0.020
Participant Cost Test (PCT)	$7,552,967	$1,950,079	$5,602,888	3.87	$0.029
Ratepayer Impact (RIM)	$4,175,181	$6,809,512	($2,634,330)	0.61	$0.102
Societal Cost (SCT)	$8,293,956	$2,867,995	$5,425,962	2.89	$0.043

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$1,366,434	$0	$0	$1,366,434
Electric Benefits ($)	$1,091,093	$0	$0	$3,674,029
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	15,473,375	0	0	66,831,518
Critical Peak Hour Demand (kW)	2,631	0	0	2,631
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	73.37%		

Name:	**Schools Program**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2025	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,747,550	$900,517	$847,033	1.94	$0.069
NEB Total Resource Cost (NTRC)	$1,136,339	$900,517	$235,822	1.26	$0.069
Total Resource Cost (TRC)	$967,838	$900,517	$67,322	1.07	$0.069
Utility Cost Test (UCT)	$967,838	$788,721	$179,117	1.23	$0.061
Participant Cost Test (PCT)	$1,542,002	$167,775	$1,374,227	9.19	$0.013
Ratepayer Impact (RIM)	$967,838	$1,765,430	($797,591)	0.55	$0.136
Societal Cost (SCT)	$1,772,536	$900,517	$872,019	1.97	$0.069

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$788,721	$0	$0	$788,721
Electric Benefits ($)	$358,096	$0	$0	$888,407
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	5,244,319	0	0	13,026,851
Critical Peak Hour Demand (kW)	842	0	0	842
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	83.57%		

Nevada Power - Commercial DR Build 2025

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Net-to-Gross**
Total							282	0.7215	203.47	479.16	135,124	10.0	96.0%
2025	**$620,484**	**$69,749**	**$528,563**	**$0**	**$22,172**	$ 78.62							
2026	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2027	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2028	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2029	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2030	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2031	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2032	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2033	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							
2034	**$23,000**	$2,400	$14,300		$6,300	$ 22.34							

Sierra - Commercial DR Build 2025

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Net-to-Gross**
	Thermostat DR (Com Build)						22	0.21	4.52	209.05	4599	**10.00**	94.0%
Measures	Agriculture Pilot (Com Build)						19	18.97	360.37	163.21	3101	**10.00**	100%
Year	**Totals**						41	8.90	364.89	187.80	7,700	10.0	96.4%
2025	**$405,346**	**$62,184**	**$323,284**	**$0**	**$19,878**	$ 484.82							
2026	**$70,600**	$16,400	$54,200		$0	$ -							
2027	**$70,600**	$16,400	$54,200		$0	$ -							
2028	**$70,600**	$16,400	$54,200		$0	$ -							
2029	**$70,600**	$16,400	$54,200		$0	$ -							
2030	**$70,600**	$16,400	$54,200		$0	$ -							
2031	**$70,600**	$16,400	$54,200		$0	$ -							
2032	**$70,600**	$16,400	$54,200		$0	$ -							
2033	**$70,600**	$16,400	$54,200		$0	$ -							
2034	**$70,600**	$16,400	$54,200		$0	$ -							

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2034	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$484,366	$705,817	($221,450)	0.69	$0.522
NEB Total Resource Cost (NTRC)	$418,683	$705,817	($287,133)	0.59	$0.522
Total Resource Cost (TRC)	$379,723	$705,817	($326,093)	0.54	$0.522
Utility Cost Test (UCT)	$379,723	$767,322	($387,599)	0.49	$0.567
Participant Cost Test (PCT)	$172,677	$0	$172,677	N/A	$0.000
Ratepayer Impact (RIM)	$379,723	$873,195	($493,472)	0.43	$0.645
Societal Cost (SCT)	$486,785	$704,930	($218,145)	0.69	$0.521

Utility Savings & Costs*		**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)		$620,484	$23,000	$23,000	$827,484
Electric Benefits ($)		$45,672	$47,634	$48,739	$373,355
Gas Benefits ($)		$0	$0	$0	$0
Incremental Energy & Demand Savings:					
	Electric Savings (kWh)	135,277	135,277	135,277	1,352,768
	Critical Peak Hour Demand (kW)	218	218	218	218
	Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	95.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2034	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$636,327	$839,292	($202,965)	0.76	$10.841
NEB Total Resource Cost (NTRC)	$631,732	$839,292	($207,560)	0.75	$10.841
Total Resource Cost (TRC)	$574,302	$839,292	($264,990)	0.68	$10.841
Utility Cost Test (UCT)	$574,302	$857,977	($283,675)	0.67	$11.082
Participant Cost Test (PCT)	$25,826	$0	$25,826	N/A	$0.000
Ratepayer Impact (RIM)	$574,302	$863,710	($289,408)	0.66	$11.156
Societal Cost (SCT)	$636,475	$838,099	($201,624)	0.76	$10.825

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$405,346	$70,600	$70,600	$1,040,746
Electric Benefits ($)	$69,337	$72,540	$74,909	$574,761
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	7,742	7,742	7,742	77,421
Critical Peak Hour Demand (kW)	407	407	407	407
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	96.37%		

Nevada Power - Commercial DR Manage 2025

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Net-to-Gross**
Total						8,560	0.990	8,472.49	637.49	5,456,934	5.00	96.0%
2025	**$958,051**	**$99,998**	**$596,891**	**$0**	**$261,162**							
2026	**$958,000**	$100,000	$597,000		$261,000							
2027	**$958,000**	$100,000	$597,000		$261,000							
2028	**$958,000**	$100,000	$597,000		$261,000							
2029	**$958,000**	$100,000	$597,000		$261,000							

Sierra - Commercial DR Manage 2025

Year	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Net-to-Gross**
Total						2,025	0.770	1,558	261.86	530,270	4.00	94.0%
2025	**$301,692**	**$70,206**	**$231,486**	**$0**	**$0**							
2026	**$301,000**	$70,000	$231,000		$0							
2027	**$301,000**	$70,000	$231,000		$0							
2028	**$301,000**	$70,000	$231,000		$0							

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$11,122,451	$3,042,863	$8,079,588	3.66	$0.111
NEB Total Resource Cost (NTRC)	$9,738,101	$3,042,863	$6,695,239	3.20	$0.111
Total Resource Cost (TRC)	$8,831,944	$3,042,863	$5,789,081	2.90	$0.111
Utility Cost Test (UCT)	$8,831,944	$4,168,144	$4,663,800	2.12	$0.153
Participant Cost Test (PCT)	$3,578,623	$0	$3,578,623	N/A	$0.000
Ratepayer Impact (RIM)	$8,831,944	$6,513,323	$2,318,620	1.36	$0.238
Societal Cost (SCT)	$11,176,622	$3,032,416	$8,144,206	3.69	$0.111

Utility Savings & Costs*		**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)		$958,051	$958,000	$958,000	$4,790,051
Electric Benefits ($)		$1,911,557	$1,991,011	$2,040,112	$8,748,639
Gas Benefits ($)		$0	$0	$0	$0
Incremental Energy & Demand Savings:					
	Electric Savings (kWh)	5,465,667	5,465,667	5,465,667	27,328,334
	Critical Peak Hour Demand (kW)	9,084	9,084	9,084	9,084
	Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2025	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,362,510	$1,086,159	$276,351	1.25	$0.516
NEB Total Resource Cost (NTRC)	$1,259,383	$1,086,159	$173,224	1.16	$0.516
Total Resource Cost (TRC)	$1,144,894	$1,086,159	$58,735	1.05	$0.516
Utility Cost Test (UCT)	$1,144,894	$1,086,159	$58,735	1.05	$0.516
Participant Cost Test (PCT)	$179,107	$0	$179,107	N/A	$0.000
Ratepayer Impact (RIM)	$1,144,894	$1,254,520	($109,626)	0.91	$0.596
Societal Cost (SCT)	$1,367,012	$1,086,159	$280,853	1.26	$0.516

Utility Savings & Costs*	**2025**	**2026**	**2027**	**Total Project**
Total Utility Investment ($)	$301,692	$301,000	$301,000	$1,204,692
Electric Benefits ($)	$300,276	$313,676	$321,173	$1,138,249
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	526,194	526,194	526,194	2,104,776
Critical Peak Hour Demand (kW)	1,634	1,634	1,634	1,634
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.00%		

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Nevada Power - Energy Reports

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$777,000**	**$115,674**	**$661,326**					
Energy Reports				124,224	161.00	20,000,000	1.0	100.0%
Total				**124,224**	161.00	**20,000,000**	**1.0**	**100.0%**

Sierra - Energy Reports

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$493,000**	**$45,987**	**$447,013**					
Energy Reports				53,957	139.00	7,500,000	1.0	100.0%
Total				**53,957**	139.00	**7,500,000**	**1.0**	**100.0%**

Nevada Power - Energy Assessments and Direct Install

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$1,600,000**	**$159,870**	**$1,440,130**	**-**					
Online Energy Assessments					6,200	186.15	1,154,125	1.0	100.0%
In-home Energy Assessments					4,800	322.16	1,546,368	2.0	100.0%
HVAC Filter plus Whistle					4,000	178.40	713,600	5.0	90.0%
ENERGY STAR® LED Bulbs					9,500	28.23	268,220	8.8	82.0%
Photocell / LED Photocell Combo					499	70.00	34,930	3.2	100.0%
Wifi Smart Plug					3,373	49.50	166,964	7.0	100.0%
Advanced Power Strips (DI)					1,801	163.16	293,848	10.0	95.0%
Home Improvements Channel					200	109.73	21,946	13.8	100.0%
Total					**30,373**	**138.28**	4,200,000	**3.39**	**96.8%**

Sierra - Energy Assessments and Direct Install

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$429,000**	**62,021.24**	**366,978.76**	**-**					
Online Energy Assessments					1,800	173.34	312,004	1.0	100.0%
In-home Energy Assessments					802	225.41	180,779	2.0	100.0%
HVAC Filter plus Whistle					125	99.40	12,425	5.0	90.0%
ENERGY STAR LED Bulbs					1,557	28.25	43,979	8.8	90.0%
Photocell / LED Photocell Combo					101	68.60	6,928	3.2	100.0%
Wifi Smart Plug					400	49.50	19,800	7.0	100.0%
Advanced Power Strips (DI)					450	163.16	73,421	10.0	95.0%
Home Improvements Channel					120	88.86	10,663	9.7	100.0%
Total					**5,355**	**123.25**	660,000	**3.13**	**98.6%**

Nevada Power - Residential Home Energy Saver

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,089,000**	**$189,757**	**$1,279,304**	**$ 619,939**	**$ -**						
Advanced Power Strip						6,500	163.65	1,063,696	10	$51.0	74.0%
ENERGY STAR Clothes Dryer						200	27.88	5,576	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,700	119.80	203,658	14	$59.0	74.0%
ENERGY STAR Air Purifier						1,050	139.32	146,289	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						400	45.58	18,232	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						50	38.50	1,925	14	$68.0	74.0%
ENERGY STAR® Freezers						44	44.00	1,936	14	$6.0	74.0%
ENERGY STAR Heat Pump Dryer						3,180	139.00	442,020	14	$562.0	74.0%
Winterization Calibration						1,200	2,152.29	2,582,744	2	$150.0	90.0%
Peak Avoidance Calibration						400	2,834.81	1,133,924	2	$150.0	90.0%
Totals						**14,724**	**380**	**5,600,000**	**4.74**		**84.6%**

Sierra - Residential Home Energy Saver

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$861,000**	**81,481.06**	**323,394.56**	**456,124.38**	**-**						
Advanced Power Strip						17,327	163.64	2,835,436	10	$62.0	74.0%
ENERGY STAR Clothes Dryer						1,800	28.36	51,048	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,300	113.77	147,895	14	$59.0	74.0%
ENERGY STAR Air Purifier						800	140.84	112,672	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						3,300	23.00	75,900	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						4	41.73	167	14	$68.0	74.0%
ENERGY STAR® Freezers						3	42.31	127	14	$6.0	74.0%
Engine Block Heater Controller						500	553.51	276,755	12	$170.0	100.0%
Totals						**25,034**	**140**	**3,500,000**	**10.38**		**76.1%**

Nevada Power - Residential HVAC

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,620,000**	**$323,706**	**$909,076**	**1,387,219**						
Low Income - AC Tune Up					200	1,043.57	208,714	5	$0	100.0%
Low Income - HP Tune Up					4	1,336.51	5,346	5	$0	100.0%
Low Income - AC Replacement					16	309.50	4,952	18	$402	100.0%
Low Income - HP Replacement					42	550.64	23,127	15	$402	100.0%
Retrofit - AC Tune Up					3,000	1,087.58	3,262,746	5	$100	76.0%
Retrofit - HP Tune Up					100	1,366.55	136,655	5	$100	76.0%
Retrofit - AC Replacement					700	446.37	312,459	18	$1,202	72.0%
Retrofit - HP Replacement					400	557.79	223,116	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					14	1,634.67	22,885	12	$690	74.0%
Totals					**4,476**	**938.34**	**4,200,000**	**6.53**		**76.9%**

Sierra - Residential HVAC

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$745,000**	**113,528.07**	**192,349.27**	**439,122.66**						
Low Income - AC Tune Up					400	213.63	85,453	5	$0	100.0%
Low Income - HP Tune Up					5	384.05	1,920	5	$0	100.0%
Retrofit - AC Tune Up					800	205.73	164,586	5	$100	80.0%
Retrofit - HP Tune Up					1	796.00	796	5	$100	80.0%
Retrofit - AC Replacement					200	173.34	34,668	18	$1,202	72.0%
Retrofit - HP Replacement					40	947.74	37,910	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					7	2,089.50	14,627	14	$690	74.0%
Cold Climate Heat Pump					48	4,230.00	203,040	15	$7,500	72.0%
Totals					**1,501**	**361.76**	**543,000**	**10.03**	**$246**	**79.0%**

Nevada Power - Low Income QAR Measures									
2027	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$3,541,000**	**$528,566**	**$3,012,434**	$ -					
Refrigerator (QAR)					500	294.72	147,359	14.00	100.0%
Advanced Smart Strips (QAR)					510	178.75	91,162	10.00	100.0%
LED Lighting (QAR)					1,199	33.04	39,615	8.56	100.0%
Washer (QAR)					300	194.58	58,374	14.00	100.0%
Dryer (QAR)					199	390.37	77,684	14.00	100.0%
Freezer (QAR)					100	108.83	10,883	14.00	100.0%
Weatherization					499	49.00	24,451	18.00	100.0%
Total					**3,307**	**135.93**	**449,528**	**12.93**	**100.0%**

Sierra - Low Income QAR Measures

2027	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$1,033,993**	**136,801.04**	**897,192.24**	-					
Refrigerator (QAR)					200	276.17	55,233	14.00	100.0%
Advanced Smart Strips (QAR)					200	167.00	33,400	10.00	100.0%
LED Lighting (QAR)					700	33.04	23,127	8.56	100.0%
Washer (QAR)					40	194.58	7,783	14.00	100.0%
Dryer (QAR)					36	368.73	13,274	14.00	100.0%
Freezer (QAR)					20	99.13	1,983	14.00	100.0%
Weatherization					300	49.00	14,700	18.00	100.0%
Total					**1,496**	**99.93**	**149,500**	**12.08**	**100.0%**

Nevada Power - Low Income DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					450	1.00	450.00	5.493	2,472.00	17.00	10.0	100.0%
Year	Totals					450	1.00	450	5.49	2,472	17.00	10.0	100.0%
2027	$140,000	$0	$138,248	$ -	$ 1,752					2,472.000			
2028	$132,752	$0	$131,000		$1,752								
2029	$132,752	$0	$131,000		$1,752								
2030	$132,752	$0	$131,000		$1,752								
2031	$160,065	$0	$131,000		$29,065								
2032	$160,065	$0	$131,000		$29,065								
2033	$160,065	$0	$131,000		$29,065								
2034	$160,065	$0	$131,000		$29,065								
2035	$160,065	$0	$131,000		$29,065								
2036	$160,065	$0	$131,000		$29,065								

Sierra - Low Income DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					260	0.50	130.00	5.769	1,500.00	48.00	10.0	100.0%
Year	Totals					260	0.50	130.00	5.77	1,500	48.00	10.0	100.0%
2027	$92,000	-	91,042.20	-	957.80								
2028	$86,958	$0	$86,000		$958								
2029	$86,958	$0	86,000.00		$958								
2030	$86,958	$0	86,000.00		$958								
2031	$103,947	$0	86,000.00		$17,947								
2032	$103,947	$0	86,000.00		$17,947								
2033	$103,947	$0	86,000.00		$17,947								
2034	$103,947	$0	86,000.00		$17,947								
2035	$103,947	$0	86,000.00		$17,947								
2036	$103,947	$0	86,000.00		$17,947								

Nevada Power - Residential DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)				15,600	1.383	21,574.80	289.95	4,523,195.00	10.20	10.0	95.0%
	Water Heaters				160	2.368	378.91	43.09	6,805.18	6.72	11.98	100.0%
Year	Totals				15,760	1.396	22,000	287.44	4,530,000		10.0	95.0%
2027	$8,073,000	$759,811	$6,682,749	$ 630,440								
2028	$1,923,621	$144,000	$1,149,181	$630,440								
2029	$1,923,621	$144,000	$1,149,181	$630,440								
2030	$1,923,621	$144,000	$1,149,181	$630,440								
2031	$2,487,310	$144,000	$1,149,181	$1,194,129								
2032	$2,487,310	$144,000	$1,149,181	$1,194,129								
2033	$2,487,310	$144,000	$1,149,181	$1,194,129								
2034	$2,487,310	$144,000	$1,149,181	$1,194,129								
2035	$2,487,310	$144,000	$1,149,181	$1,194,129								
2036	$2,487,310	$144,000	$1,149,181	$1,194,129								

Sierra - Residential DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)				2,284	2.172	4,961.60	204.47	467,000.00	33.12	10.0	91.0%
	Water Heaters				20	1.920	38.40	-	-	16.09	11.6	100.0%
Year	Totals				2,304	2.170	5,000	202.69	467,000		10.0	91.0%
2027	$2,008,000	288,853	1,547,078	172,068								
2028	$362,745	$21,000	$169,677	$172,068								
2029	$362,745	$21,000	$169,677	$172,068								
2030	$362,745	$21,000	$169,677	$172,068								
2031	$426,771	$21,000	$169,677	$236,094								
2032	$426,771	$21,000	$169,677	$236,094								
2033	$426,771	$21,000	$169,677	$236,094								
2034	$426,771	$21,000	$169,677	$236,094								
2035	$426,771	$21,000	$169,677	$236,094								
2036	$426,771	$21,000	$169,677	$236,094								

Nevada Power - Battery Storage DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)				210	7.15	1,502.13	0.000	-	6.72	11.98	100.0%
Year	Totals				210	7.15	1,502	-	-	6.72	12.0	100.0%
2027	$1,158,000	$108,988	$702,263	$ 346,749								
2028	$115,064	$36,750	$73,500	$4,814								
2029	$115,064	$36,750	$73,500	$4,814								
2030	$115,064	$36,750	$73,500	$4,814								
2031	$190,105	$36,750	$73,500	$79,855								
2032	$190,105	$36,750	$73,500	$79,855								
2033	$190,105	$36,750	$73,500	$79,855								
2034	$190,105	$36,750	$73,500	$79,855								
2035	$190,105	$36,750	$73,500	$79,855								
2036	$190,105	$36,750	$73,500	$79,855								
2037	$190,105	$36,750	$73,500	$79,855								
2038	$190,105	$36,750	$73,500	$79,855								

Sierra - Battery Storage DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)				82	8.55	701.05	0.000	-	24.83	11.6	100.0%
Year	Totals				82	8.55	701.05	-	-	24.83	11.6	100.0%
2027	$403,000	57,972	194,608	150,420								
2028	$44,930	$14,350	$28,700	$1,880								
2029	$44,930	$14,350	$28,700	$1,880								
2030	$44,930	$14,350	$28,700	$1,880								
2031	$78,273	$14,350	$28,700	$35,223								
2032	$78,273	$14,350	$28,700	$35,223								
2033	$78,273	$14,350	$28,700	$35,223								
2034	$78,273	$14,350	$28,700	$35,223								
2035	$78,273	$14,350	$28,700	$35,223								
2036	$78,273	$14,350	$28,700	$35,223								
2037	$78,273	$14,350	$28,700	$35,223								
2038	$78,273	$14,350	$28,700	$35,223								

Nevada Power - Residential DR Manage 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/ unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					140,559	1.07	149,941.08	217.93	30,632,763	10.20	5.20	95.0%
	Battery Storage					54	7.15	386.26	0.00	-	6.72	11.98	100.0%
	Water Heaters					284	2.37	672.56	43.09	12,237	6.72	11.98	100.0%
Year	Totals					**140,897**		**151,000.00**	**217.50**	**30,645,000**		**5.2**	95.0%
2027	**$14,776,000**	**$1,421,663**	**$8,124,164**	$ -	**$5,230,173**								
2028	**$14,776,173**	$1,422,000	$8,124,000		$5,230,173								
2029	**$14,776,173**	$1,422,000	$8,124,000		$5,230,173								
2030	**$14,776,173**	$1,422,000	$8,124,000		$5,230,173								
2031	**$20,221,711**	$1,422,000	$8,124,000		$10,675,711								

Sierra - Residential DR Manage 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/ unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					20,720	0.95	19,666.90	200.00	4,144,000	33.12	6.50	91.0%
	Battery Storage					32	8.55	273.58	-	-	16.09	11.60	100.0%
	Water Heaters					31	1.92	59.52	-	-	16.09	11.60	100.0%
Year	Totals					**20,783**		**20,000.00**		**4,144,000**		**6.5**	**91.0%**
2027	**$2,325,000**	**$247,252**	**$783,058**	$ -	**$1,294,690**								
2028	**$2,324,690**	247,000	$783,000		1,294,690								
2029	**$2,324,690**	247,000	$783,000		1,294,690								
2030	**$2,326,690**	247,000	$783,000		1,296,690								
2031	**$3,159,664**	247,000	$783,000		2,129,664								
2032	**$3,159,664**	247,000	$783,000		2,129,664								
2033	**$3,159,664**	247,000	$783,000		2,129,664								

Nevada Power - Energy Smart Schools

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$1,135,000**	**$150,600**	**$658,760**	**$ 325,641**						
CEI, Schools					9,000	1,000	9,000,000	1.0	$0.00	71.0%
Capital Projects					5,000	1,000	5,000,000	9.13	$243.93	77.0%
Total					**14,000**	**1,000**	**14,000,000**	**4.06**		**73.1%**

Sierra - Energy Smart Schools

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$465,000**	**50,648.75**	**310,846.10**	**103,505.14**						
SEM (Behavioral)					1,450	1,000	1,450,000	1.0	$3.76	87.0%
Capital improvement projects					1,000	1,000	1,000,000	13.82	$167.58	64.0%
Total					**2,450**	**1,000**	**2,450,000**	**5.3**		**77.6%**

Nevada Power - Schools DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per Unit	Net-to-Gross**
Measures	Thermostat DR (Sch Build)					$ 3.35	7,000	2.21	15,500.00	243.00	1,701,000	-	10.0	-	96.0%
Year	**Totals**						**7,000**	**2.21**	**15,500**	**243.00**	**1,701,000**		**10.0**		**96.0%**
2027	**$4,375,000**	**$411,764**	**$3,939,794**	**$ -**	**$ 23,442**										
2028	**$1,527,206**	$411,764	$1,092,000		$23,442										
2029	**$1,527,206**	$411,764	$1,092,000		$23,442										
2030	**$1,527,206**	$411,764	$1,092,000		$23,442										
2031	**$1,892,606**	$411,764	$1,092,000		$388,842										
2032	**$1,892,606**	$411,764	$1,092,000		$388,842										
2033	**$1,892,606**	$411,764	$1,092,000		$388,842										
2034	**$1,892,606**	$411,764	$1,092,000		$388,842										
2035	**$1,892,606**	$411,764	$1,092,000		$388,842										
2036	**$1,892,606**	$411,764	$1,092,000		$388,842										

Nevada Power - Business Energy Services

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$13,685,000**	**$1,524,792**	**$6,001,958**	**$ -**	**$ 6,158,250**						
Commercial Measures					$6,158,250	87,570	1,000	87,570,000	12.0	$187.04	75.0%
Total					**$6,158,250**	**87,570**	**1,000**	**87,570,000**	**12.00**	**$187**	**75.0%**

Sierra - Business Energy Serivces

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$4,741,000**	**592,647.68**	**2,394,182.00**	**-**	**1,754,170.00**						
Commercial Measures					$1,754,170	26,250	1,000	26,250,000	12.9	$175.77	75.0%
Total					**$1,754,170**	**26,250**	**1,000**	**26,250,000**	**12.90**	**$176**	**75.0%**

Nevada Power - Commercial DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per Unit	Net-to-Gross**
Measures	Commercial DR Build					$ 279.38	331	9.06	3,000.00	259.82	86,000	-	10.0	-	96.0%
Year	Totals						331		3,000	260	86,000	-	10.0		96.0%
2027	$443,000	$49,798	$387,950	$ -	$ 5,252										
2028	$266,050	$49,798	$211,000		$5,252										
2029	$266,050	$49,798	$211,000		$5,252										
2030	$266,050	$49,798	$211,000		$5,252										
2031	$279,185	$49,798	$211,000		$18,387										
2032	$279,185	$49,798	$211,000		$18,387										
2033	$279,185	$49,798	$211,000		$18,387										
2034	$279,185	$49,798	$211,000		$18,387										
2035	$279,185	$49,798	$211,000		$18,387										
2036	$279,185	$49,798	$211,000		$18,387										

Sierra - Commercial DR Build 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per Unit	Net-to-Gross**
Measures	Commercial DR Build					$ -	84	3.57	300.00	178.57	15,000	-	10.0	-	94.0%
Year	Totals						84	3.57	300.00	178.57	15,000		10.0		94.0%
2027	$171,000	26,233.06	143,174.74	-	1,592.20										
2028	$72,825	26,233.06	45,000.00		$1,592										
2029	$72,825	26,233.06	45,000.00		$1,592										
2030	$72,825	26,233.06	45,000.00		$1,592										
2031	$82,653	26,233.06	45,000.00		$11,420										
2032	$82,653	26,233.06	45,000.00		$11,420										
2033	$82,653	26,233.06	45,000.00		$11,420										
2034	$82,653	26,233.06	45,000.00		$11,420										
2035	$82,653	26,233.06	45,000.00		$11,420										
2036	$82,653	26,233.06	45,000.00		$11,420										

Nevada Power - Commercial DR Manage 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					9,480	0.992	9,400	638.00	6,048,400	-	5.00	96.0%
	COE/LRG					100	26.000	2,600	216.00	21,600			
Year	Totals					9,580		12,000		6,070,000		5.0	95.7%
2027	$884,000	$92,269	$627,804	$ -	$ 163,927								
2028	$884,000	$92,269	$627,804		$ 163,927								
2029	$884,000	$92,269	$627,804		$ 163,927								
2030	$884,000	$92,269	$627,804		$ 163,927								
2031	$1,252,231	$92,269	$627,804		$ 532,158								

Sierra - Commercial DR Manage 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					6,333	0.960	6,080	219.34	1,389,191	-	4.00	94.0%
	Agricultural DR (Mng)					17	32.050	545	552.00	9,384		10.00	100.0%
	COE					15	25.000	375	95.00	1,425			
Year	Totals					6,365		7,000		1,400,000		4.0	94.0%
2027	$609,000	$141,719	$199,838	$ -	$ 267,443								
2028	$609,000	$141,719	$199,838		267,443								
2029	$609,000	$141,719	$199,838		267,443								
2030	$610,110	$141,719	$199,838		268,553								

Sierra - Agricultural DR 2027

2027	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	S/kW Reduced	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per Unit	Net-to-Gross**
Measures	Agricultural Pump DR					$ 50.00	70	42.86	3,000.00	557.14	39,000	-	10.0	-	100.0%
Year	**Totals**						**70**		**3,000.00**		**39,000**		**10.0**		**100.0%**
2027	**$814,000**	**$150,000**	**$387,988**	**-**	**$276,012**										
2028	**$814,012**	$150,000	$388,000		276,012										
2029	**$814,012**	$150,000	$388,000		276,012										
2030	**$814,012**	$150,000	$388,000		276,012										
2031	**$814,012**	$150,000	$388,000		276,012										
2032	**$814,012**	$150,000	$388,000		276,012										
2033	**$814,012**	$150,000	$388,000		276,012										
2034	**$814,012**	$150,000	$388,000		276,012										
2035	**$814,012**	$150,000	$388,000		276,012										
2036	**$814,012**	$150,000	$388,000		276,012										

Nevada Power - Energy Reports

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$893,000**	**$159,587**	**$733,413**					
Energy Reports				124,224	161.00	20,000,000	1.0	100.0%
Total				**124,224**	161.00	**20,000,000**	**1.0**	**100.0%**

Sierra - Energy Reports

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$542,000**	**$50,558**	**$491,442**					
Energy Reports				53,957	139.00	7,500,000	1.0	100.0%
Total				**53,957**	139.00	**7,500,000**	**1.0**	**100.0%**

Nevada Power - Energy Assessments and Direct Install

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$1,733,000**	**$162,258**	**$1,570,742**	-					
Online Energy Assessments					6,200	186.15	1,154,125	1.0	100.0%
In-home Energy Assessments					4,800	322.16	1,546,368	2.0	100.0%
HVAC Filter plus Whistle					4,000	178.40	713,600	5.0	90.0%
ENERGY STAR® LED Bulbs					9,500	28.23	268,220	8.8	82.0%
Photocell / LED Photocell Combo					499	70.00	34,930	3.2	100.0%
Wifi Smart Plug					3,373	49.50	166,964	7.0	100.0%
Advanced Power Strips (DI)					1,801	163.16	293,848	10.0	95.0%
Home Improvements Channel					200	109.73	21,946	13.8	100.0%
Total					**30,373**	**138.28**	4,200,000	**3.39**	**96.8%**

Sierra - Energy Assessments and Direct Install

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$472,000**	**68,237.83**	**403,762.17**	-					
Online Energy Assessments					1,800	173.34	312,012.00	1.0	100.0%
In-home Energy Assessments					802	225.41	180,778.97	2.0	100.0%
HVAC Filter plus Whistle					125	99.40	12,425.44	5.0	90.0%
ENERGY STAR LED Bulbs					1,557	28.25	43,978.75	8.8	90.0%
Photocell / LED Photocell Combo					101	68.60	6,928.38	3.2	100.0%
Wifi Smart Plug					400	49.50	19,800.00	7.0	100.0%
Advanced Power Strips (DI)					450	163.16	73,421.34	10.0	95.0%
Home Improvements Channel					120	88.86	10,662.70	9.7	100.0%
Total					**5,355**	**123.25**	660,000.00	**3.13**	**98.6%**

Nevada Power - Residential Home Energy Saver

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,298,000**	**$208,742**	**$1,407,296**	**$ 681,962**	**$ -**						
Advanced Power Strip						6,500	163.65	1,063,696	10	$51.0	74.0%
ENERGY STAR Clothes Dryer						200	27.88	5,576	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,700	119.80	203,658	14	$59.0	74.0%
ENERGY STAR Air Purifier						1,050	139.32	146,289	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						400	45.58	18,232	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						50	38.50	1,925	14	$68.0	74.0%
ENERGY STAR® Freezers						44	44.00	1,936	14	$6.0	74.0%
ENERGY STAR Heat Pump Dryer						3,180	139.00	442,020	14	$562.0	74.0%
Winterization Calibration						1,200	2,152.29	2,582,744	2	$150.0	90.0%
Peak Avoidance Calibration						400	2,834.81	1,133,924	2	$150.0	90.0%
Totals						**14,724**	**380**	**5,600,000**	**4.74**		**84.6%**

Sierra - Residential Home Energy Saver

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$947,000**	**89,619.70**	**355,696.46**	**501,683.84**	**-**						
Advanced Power Strip						17,327	163.64	2,835,436	10	$62.0	74.0%
ENERGY STAR Clothes Dryer						1,800	28.36	51,048	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,300	113.77	147,895	14	$59.0	74.0%
ENERGY STAR Air Purifier						800	140.84	112,672	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						3,300	23.00	75,900	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						4	41.73	167	14	$68.0	74.0%
ENERGY STAR® Freezers						3	42.31	127	14	$6.0	74.0%
Engine Block Heater Controller						500	553.51	276,755	12	$170.0	100.0%
Totals						**25,034**	**140**	**3,500,000**	**10.38**		**76.1%**

Nevada Power - Residential HVAC

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,882,000**	**$356,076**	**$999,983**	**1,525,940**						
Low Income - AC Tune Up					200	1,043.57	208,714	5	$0	100.0%
Low Income - HP Tune Up					4	1,336.51	5,346	5	$0	100.0%
Low Income - AC Replacement					16	309.50	4,952	18	$402	100.0%
Low Income - HP Replacement					42	550.64	23,127	15	$402	100.0%
Retrofit - AC Tune Up					3,000	1,087.58	3,262,746	5	$100	76.0%
Retrofit - HP Tune Up					100	1,366.55	136,655	5	$100	76.0%
Retrofit - AC Replacement					700	446.37	312,459	18	$1,202	72.0%
Retrofit - HP Replacement					400	557.79	223,116	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					14	1,634.67	22,885	12	$690	74.0%
Totals					**4,476**	**938.34**	**4,200,000**	**6.53**		**76.9%**

Sierra - Residential HVAC

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$820,000**	**124,957.07**	**211,713.29**	**483,329.64**						
Low Income - AC Tune Up					400	213.63	85,453	5	$0	100.0%
Low Income - HP Tune Up					5	384.05	1,920	5	$0	100.0%
Retrofit - AC Tune Up					800	205.73	164,586	5	$100	80.0%
Retrofit - HP Tune Up					1	796.00	796	5	$100	80.0%
Retrofit - AC Replacement					200	173.34	34,668	18	$1,202	72.0%
Retrofit - HP Replacement					40	947.74	37,910	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					7	2,089.50	14,627	14	$690	74.0%
Cold Climate Heat Pump					48	4,230.00	203,040	15	$7,500	72.0%
Totals					**1,501**	**361.76**	**543,000**	**10.03**	**$246**	**79.0%**

Nevada Power - Low Income QAR Measures									
2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$3,940,000**	**$451,677**	**$3,488,323**	**$ -**					
Refrigerator (QAR)					500	294.72	147,359	14.00	100.0%
Advanced Smart Strips (QAR)					510	178.75	91,162	10.00	100.0%
LED Lighting (QAR)					1,199	33.04	39,615	8.56	100.0%
Washer (QAR)					300	194.58	58,374	14.00	100.0%
Dryer (QAR)					199	390.37	77,684	14.00	100.0%
Freezer (QAR)					100	108.83	10,883	14.00	100.0%
Weatherization					499	49.00	24,451	18.00	100.0%
Total					**3,307**	**135.93**	**449,528**	**12.93**	**100.0%**

Sierra - Low Income QAR Measures

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$1,119,000**	**148,044.14**	**970,956.04**	**-**					
Refrigerator (QAR)					200	276.17	55,233	14.00	100.0%
Advanced Smart Strips (QAR)					200	167.00	33,400	10.00	100.0%
LED Lighting (QAR)					700	33.04	23,127	8.56	100.0%
Washer (QAR)					40	194.58	7,783	14.00	100.0%
Dryer (QAR)					36	368.73	13,274	14.00	100.0%
Freezer (QAR)					20	99.13	1,983	14.00	100.0%
Weatherization					300	49.00	14,700	18.00	100.0%
Total					**1,496**	**99.93**	**149,500**	**12.08**	**100.0%**

Nevada Power - Low Income DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					450	1.00	450.00	5.493	2,472.00	17.00	10.0	100.0%
Year	Totals					450	1.00	450	5.49	2,472	17.00	10.0	100.0%
2028	$140,000	$0	$138,248	$ -	$ 1,752								
2029	$140,000	$0	$131,000		$1,752								
2030	$140,000	$0	$131,000		$1,752								
2031	$140,000	$0	$131,000		$1,752								
2032	$140,000	$0	$131,000		$29,065								
2033	$140,000	$0	$131,000		$29,065								
2034	$140,000	$0	$131,000		$29,065								
2035	$140,000	$0	$131,000		$29,065								
2036	$140,000	$0	$131,000		$29,065								
2037	$140,000	$0	$131,000		$29,065								

Sierra - Low Income DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					260	0.50	130.00	5.769	1,500.00	48.00	10.0	100.0%
Year	Totals					260	0.50	130.00	5.77	1,500	48.00	10.0	100.0%
2028	$92,000	-	91,042.20	-	957.80								
2029	$91,300	$0	$86,000		$958								
2030	$91,300	$0	$86,000		$958								
2031	$91,300	$0	$86,000		$958								
2032	$91,300	$0	$86,000		$17,947								
2033	$91,300	$0	$86,000		$17,947								
2034	$91,300	$0	$86,000		$17,947								
2035	$91,300	$0	$86,000		$17,947								
2036	$91,300	$0	$86,000		$17,947								
2037	$91,300	$0	$86,000		$17,947								

Nevada Power - Residential DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)					17,163	1.374	23,621.54	289.94	4,976,105.82	10.20	10.0	95.0%
	Water Heaters					160	2.368	378.91	43.09	6,894.18	6.72	11.98	100.0%
Year	Totals					17,323	1.385	24,000	287.66	4,983,000		10.0	95.0%
2028	$8,880,000	$835,764	$7,351,290	$ -	$ 692,946								
2029	$2,104,656	$158,000	$1,253,692		$692,964								
2030	$2,104,656	$158,000	$1,253,692		$692,964								
2031	$2,104,656	$158,000	$1,253,692		$692,964								
2032	$2,724,249	$158,000	$1,253,692		$1,312,557								
2033	$2,724,249	$158,000	$1,253,692		$1,312,557								
2034	$2,724,249	$158,000	$1,253,692		$1,312,557								
2035	$2,724,249	$158,000	$1,253,692		$1,312,557								
2036	$2,724,249	$158,000	$1,253,692		$1,312,557								
2037	$2,724,249	$158,000	$1,253,692		$1,312,557								

Sierra - Residential DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)					2,509	2.177	5,461.60	204.46	513,000.00	33.12	10.0	91.0%
	Water Heaters					20	1.920	38.40	-	-	16.09	11.6	100.0%
Year	Totals					2,529	2.175	5,500	202.85	513,000		10.0	91.0%
2028	$2,209,000	317,767	1,702,361	-	188,872								
2029	$398,516	$23,000	$186,644		$188,872								
2030	$398,516	$23,000	$186,644		$188,872								
2031	$398,516	$23,000	$186,644		$188,872								
2032	$468,795	$23,000	$186,644		$259,150								
2033	$468,795	$23,000	$186,644		$259,150								
2034	$468,795	$23,000	$186,644		$259,150								
2035	$468,795	$23,000	$186,644		$259,150								
2036	$468,795	$23,000	$186,644		$259,150								
2037	$468,795	$23,000	$186,644		$259,150								

Nevada Power - Battery Storage DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)					140	7.15	1,001.42	0.000	-	6.72	11.98	100.0%
Year	Totals					140	7.15	1,001	-	-	6.72	12.0	100.0%
2028	$705,000	$66,353	$407,481	$ -	$ 231,166								
2029	$76,710	$24,500	$49,000		$3,210								
2030	$76,710	$24,500	$49,000		$3,210								
2031	$76,710	$24,500	$49,000		$3,210								
2032	$126,737	$24,500	$49,000		$53,237								
2033	$126,737	$24,500	$49,000		$53,237								
2034	$126,737	$24,500	$49,000		$53,237								
2035	$126,737	$24,500	$49,000		$53,237								
2036	$126,737	$24,500	$49,000		$53,237								
2037	$126,737	$24,500	$49,000		$53,237								
2038	$126,737	$24,500	$49,000		$53,237								
2039	$126,737	$24,500	$49,000		$53,237								

Sierra - Battery Storage DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)					62	8.55	530.00	0.000	-	24.83	11.6	100.0%
Year	Totals					62	8.55	530.00	-	-	24.83	11.6	100.0%
2028	$264,000	37,977	112,291	-	113,732								
2029	$33,971	$10,850	$21,700		$1,421								
2030	$33,971	$10,850	$21,700		$1,421								
2031	$33,971	$10,850	$21,700		$1,421								
2032	$59,182	$10,850	$21,700		$26,632								
2033	$59,182	$10,850	$21,700		$26,632								
2034	$59,182	$10,850	$21,700		$26,632								
2035	$59,182	$10,850	$21,700		$26,632								
2036	$59,182	$10,850	$21,700		$26,632								
2037	$59,182	$10,850	$21,700		$26,632								
2038	$59,182	$10,850	$21,700		$26,632								
2039	$59,182	$10,850	$21,700		$26,632								

Nevada Power - Residential DR Manage 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of	Capacity Savings (kW /	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					145,185	1.06	154,375.50	217.93	31,640,765	10.20	5.20	95.0%
	Battery Storage					235	7.15	1,680.96	0.00	-	6.72	11.98	100.0%
	Water Heaters					400	2.37	947.27	43.09	17,235	6.72	11.98	100.0%
Year	Totals					**145,820**	**1.08**	**157,000.00**	**217.10**	**31,658,000**		**5.2**	95.0%
2028	**$15,613,000**	**$1,502,194**	**$8,697,889**	$ -	**$5,412,917**								
2029	**$15,612,917**	$1,502,000	$8,698,000		$5,412,917								
2030	**$15,612,917**	$1,502,000	$8,698,000		$5,412,917								
2031	**$15,612,917**	$1,502,000	$8,698,000		$5,412,917								
2032	**$21,248,725**	$1,502,000	$8,698,000		$11,048,725								

Sierra - Residential DR Manage 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of	Capacity Savings (kW /	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					21,885	1.01	22,033.01	189.63	4,150,000	33.12	6.50	91.0%
	Battery Storage					103	8.55	880.59	-	-	16.09	11.60	100.0%
	Water Heaters					45	1.92	86.40	-	-	16.09	11.60	100.0%
Year	Totals					**22,033**	**1.04**	**23,000.00**	**188.35**	**4,150,000**		**6.5**	**91.0%**
2028	**$2,627,000**	**$279,369**	**$975,071**	$ -	**$1,372,560**								
2029	**$2,626,560**	279,000.00	$975,000		1,372,559.80								
2030	**$2,626,560**	279,000.00	$975,000		1,372,559.80								
2031	**$2,626,560**	279,000.00	$975,000		1,372,559.80								
2032	**$3,511,753**	279,000.00	$975,000		2,257,753.20								
2033	**$3,511,753**	279,000.00	$975,000		2,257,753.20								
2034	**$3,511,753**	279,000.00	$975,000		2,257,753.20								

Nevada Power - Energy Smart Schools

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$1,419,000**	**$188,283**	**$823,595**	**$ 407,122**						
CEI, Schools					9,000	1,000	9,000,000	1.0	$0.00	71.0%
Capital Projects					5,000	1,000	5,000,000	9.13	$243.93	77.0%
Total					**14,000**	**1,000**	**14,000,000**	**4.06**		**73.1%**

Sierra - Energy Smart Schools

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$511,000**	**55,659.17**	**341,596.47**	**113,744.36**						
SEM (Behavioral)					1,450	1,000	1,450,000	1.0	$3.76	87.0%
Capital improvement projects					1,000	1,000	1,000,000	13.82	$167.58	64.0%
Total					**2,450**	**1,000**	**2,450,000**	**5.3**		**77.6%**

Nevada Power - Schools DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per Unit	Net-to-Gross**
Measures	Thermostat DR (Sch Build)					$ 3.35	7,000	2.21	15,500.00	243.00	1,701,000	-	10.0	-	96.0%
Year	Totals						7,000	2.21	15,500	243.00	1,701,000		10.0		96.0%
2028	$4,375,000	$411,764	$3,939,794	$ -	$ 23,442										
2029	$1,527,206	$411,764	$1,092,000		$23,442										
2030	$1,527,206	$411,764	$1,092,000		$23,442										
2031	$1,527,206	$411,764	$1,092,000		$23,442										
2032	$1,892,606	$411,764	$1,092,000		$388,842										
2033	$1,892,606	$411,764	$1,092,000		$388,842										
2034	$1,892,606	$411,764	$1,092,000		$388,842										
2035	$1,892,606	$411,764	$1,092,000		$388,842										
2036	$1,892,606	$411,764	$1,092,000		$388,842										
2037	$1,892,606	$411,764	$1,092,000		$388,842										

Sierra - Schools DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per	Net-to-Gross**
Measures	Thermostat DR (Com Build)					$ 7.26	1,500	1.80	2,700.00	194.67	292,000	24.83	10.0	-	94.0%
Year	Totals						1,500		2,700.00	194.67	292,000		10.0		94.0%
2028	$938,000	134,860.35	792,255.75	-	10,883.90										
2029	$439,744	134,860.35	294,000.00		$10,884										
2030	$439,744	134,860.35	294,000.00		$10,884										
2031	$439,744	134,860.35	294,000.00		$10,884										
2032	$632,794	134,860.35	294,000.00		$203,934										
2033	$632,794	134,860.35	294,000.00		$203,934										
2034	$632,794	134,860.35	294,000.00		$203,934										
2035	$632,794	134,860.35	294,000.00		$203,934										
2036	$632,794	134,860.35	294,000.00		$203,934										
2037	$632,794	134,860.35	294,000.00		$203,934										

Nevada Power - Business Energy Services

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$15,054,000**	**$1,677,327**	**$6,602,373**	**$ -**	**$ 6,774,300**						
Commercial Measures					$6,774,300	87,570	1,000	87,570,000	12.0	$187.04	75.0%
Total					**$6,774,300**	**87,570**	**1,000**	**87,570,000**	**12.00**	**$187**	**75.0%**

Sierra - Business Energy Serivces

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$5,216,000**	**652,024.95**	**2,608,000.00**	**-**	**1,955,975.05**						
Commercial Measures					$1,955,975	26,250	1,000	26,250,000	12.9	$175.77	75.0%
Total					**$1,955,975**	**26,250**	**1,000**	**26,250,000**	**12.90**	**$176**	**75.0%**

Nevada Power - Commercial DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ 278.96	442	9.05	4,000.00	233.03	103,000	-	10.0	-	96.0%
Year	Totals						442		4,000	233	103,000	-	10.0		96.0%
2028	$487,000	$54,744	$425,243	$ -	$ 7,013										
2029	$343,757	$54,744	$282,000		$7,013										
2030	$343,757	$54,744	$282,000		$7,013										
2031	$343,757	$54,744	$282,000		$7,013										
2032	$361,297	$54,744	$282,000		$24,553										
2033	$361,297	$54,744	$282,000		$24,553										
2034	$361,297	$54,744	$282,000		$24,553										
2035	$361,297	$54,744	$282,000		$24,553										
2036	$361,297	$54,744	$282,000		$24,553										
2037	$361,297	$54,744	$282,000		$24,553										

Sierra - Commercial DR Build 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ -	112	3.56	400.00	142.86	16,000	-	10.0	-	94.0%
Year	Totals						112	3.57	400.00	142.86	16,000		10.0		94.0%
2028	$188,000	28,841.03	157,036.04	-	2,122.93										
2029	$89,964	28,841.03	59,000.00		$2,123										
2030	$89,964	28,841.03	59,000.00		$2,123										
2031	$89,964	28,841.03	59,000.00		$2,123										
2032	$103,068	28,841.03	59,000.00		$15,227										
2033	$103,068	28,841.03	59,000.00		$15,227										
2034	$103,068	28,841.03	59,000.00		$15,227										
2035	$103,068	28,841.03	59,000.00		$15,227										
2036	$103,068	28,841.03	59,000.00		$15,227										
2037	$103,068	28,841.03	59,000.00		$15,227										

Nevada Power - Commercial DR Manage 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					9,780	0.776	7,593	560.64	5,483,080	-	5.00	96.0%
	School DR (Mng)					6,800	2.742	18,647	230.00	1,564,000		10.00	100.0%
	COE/LRG					120	23.000	2,760	216.00	25,920			
Year	Totals					**16,700**		**29,000**		**7,073,000**		6.1	96.9%
2028	**$1,691,000**	**$250,502**	**$1,154,737**	$ -	$ **285,761**								
2029	**$1,691,000**	$250,502	$1,154,737		$ 285,761								
2030	**$1,691,000**	$250,502	$1,154,737		$ 285,761								
2031	**$1,691,000**	$250,502	$1,154,737		$ 285,761								
2032	**$2,332,905**	$250,502	$1,154,737		$ 927,666								

Sierra - Commercial DR Manage 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					6,829	0.956	6,530	205.55	1,403,601	-	4.00	94.0%
	Agricultural DR (Mng)					87	35.000	3,045	552.00	48,024		10.00	100.0%
	COE					25	25.000	625	95.00	2,375			
Year	Totals					**6,941**	**1.470**	**10,200**	**209.49**	**1,454,000**		4.2	94.0%
2028	**$1,106,000**	**$257,551**	**$463,990**	$ -	$ **384,459**								
2029	**$1,106,000**	$257,551	$463,990		$384,459								
2030	**$1,106,000**	$257,551	$463,990		$384,459								
2031	**$1,106,000**	$257,551	$463,990		$384,459								

Sierra - Agricultural DR 2028

2028	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Agricultural Pump DR					$ 50.00	90	44.44	4,000.00	555.56	50,000	-	10.0	-	100.0%
Year	Totals						90		4,000.00		50,000		10.0		100.0%
2028	$1,003,000	$150,000	$498,184	-	$354,816										
2029	$1,002,816	$150,000	$498,000		354,816										
2030	$1,002,816	$150,000	$498,000		354,816										
2031	$1,002,816	$150,000	$498,000		354,816										
2032	$1,002,816	$150,000	$498,000		354,816										
2033	$1,002,816	$150,000	$498,000		354,816										
2034	$1,002,816	$150,000	$498,000		354,816										
2035	$1,002,816	$150,000	$498,000		354,816										
2036	$1,002,816	$150,000	$498,000		354,816										
2037	$1,002,816	$150,000	$498,000		354,816										

Nevada Power - Energy Reports

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$982,000**	**$118,469**	**$863,531**					
Energy Reports				124,224	161.00	20,000,000	1.0	100.0%
Total				**124,224**	161.00	**20,000,000**	**1.0**	**100.0%**

Sierra - Energy Reports

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Number of Participants	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$596,000**	**$55,595**	**$540,405**					
Energy Reports				53,957	139.00	7,500,000	1.0	100.0%
Total				**53,957**	139.00	**7,500,000**	**1.0**	**100.0%**

Nevada Power - Energy Assessments and Direct Install

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$1,906,000**	**$229,072**	**$1,676,928**	-					
Online Energy Assessments					6,200	186.15	1,154,125	1.0	100.0%
In-home Energy Assessments					4,800	322.16	1,546,368	2.0	100.0%
HVAC Filter plus Whistle					4,000	178.40	713,600	5.0	90.0%
ENERGY STAR® LED Bulbs					9,500	28.23	268,220	8.8	82.0%
Photocell / LED Photocell Combo					499	70.00	34,930	3.2	100.0%
Wifi Smart Plug					3,373	49.50	166,964	7.0	100.0%
Advanced Power Strips (DI)					1,801	163.16	293,848	10.0	95.0%
Home Improvements Channel					200	109.73	21,946	13.8	100.0%
Total					**30,373**	**138.28**	4,200,000	**3.39**	**96.8%**

Sierra - Energy Assessments and Direct Install

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Net-to-Gross
Measures	**$519,000**	**75,032.69**	**443,967.31**	-					
Online Energy Assessments					1,800	173.34	312,012	1.0	100.0%
In-home Energy Assessments					802	225.41	180,779	2.0	100.0%
HVAC Filter plus Whistle					125	99.40	12,425	5.0	90.0%
ENERGY STAR LED Bulbs					1,557	28.25	43,979	8.8	90.0%
Photocell / LED Photocell Combo					101	68.60	6,928	3.2	100.0%
Wifi Smart Plug					400	49.50	19,800	7.0	100.0%
Advanced Power Strips (DI)					450	163.16	73,421	10.0	95.0%
Home Improvements Channel					120	88.86	10,663	9.7	100.0%
Total					**5,355**	**123.25**	660,000	**3.13**	**98.6%**

Nevada Power - Residential Home Energy Saver

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$2,528,000**	**$229,635**	**$1,548,148**	**$ 750,218**	**$ -**						
Advanced Power Strip						6,500	163.65	1,063,696	10	$51.0	74.0%
ENERGY STAR Clothes Dryer						200	27.88	5,576	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,700	119.80	203,658	14	$59.0	74.0%
ENERGY STAR Air Purifier						1,050	139.32	146,289	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						400	45.58	18,232	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						50	38.50	1,925	14	$68.0	74.0%
ENERGY STAR® Freezers						44	44.00	1,936	14	$6.0	74.0%
ENERGY STAR Heat Pump Dryer						3,180	139.00	442,020	14	$562.0	74.0%
Winterization Calibration						1,200	2,152.29	2,582,744	2	$150.0	90.0%
Peak Avoidance Calibration						400	2,834.81	1,133,924	2	$150.0	90.0%
Totals						**14,724**	**380**	**5,600,000**	**4.74**		**84.6%**

Sierra - Residential Home Energy Saver

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$1,042,000**	**98,610.06**	**391,378.79**	**552,011.15**	**-**						
Advanced Power Strip						17,327	163.64	2,835,436	10	$62.0	74.0%
ENERGY STAR Clothes Dryer						1,800	28.36	51,048	12	$358.0	74.0%
ENERGY STAR Clothes Washer						1,300	113.77	147,895	14	$59.0	74.0%
ENERGY STAR Air Purifier						800	140.84	112,672	9	$62.0	74.0%
ENERGY STAR Room Air Conditioner						3,300	23.00	75,900	10.5	$65.0	74.0%
ENERGY STAR Refrigerator						4	41.73	167	14	$68.0	74.0%
ENERGY STAR® Freezers						3	42.31	127	14	$6.0	74.0%
Engine Block Heater Controller						500	553.51	276,755	12	$170.0	100.0%
Totals						**25,034**	**140**	**3,500,000**	**10.38**		**76.1%**

Nevada Power - Residential HVAC

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$3,171,000**	**$391,783**	**$1,100,259**	**1,678,958.03**						
Low Income - AC Tune Up					200	1,043.57	208,714	5	$0	100.0%
Low Income - HP Tune Up					4	1,336.51	5,346	5	$0	100.0%
Low Income - AC Replacement					16	309.50	4,952	18	$402	100.0%
Low Income - HP Replacement					42	550.64	23,127	15	$402	100.0%
Retrofit - AC Tune Up					3,000	1,087.58	3,262,746	5	$100	76.0%
Retrofit - HP Tune Up					100	1,366.55	136,655	5	$100	76.0%
Retrofit - AC Replacement					700	446.37	312,459	18	$1,202	72.0%
Retrofit - HP Replacement					400	557.79	223,116	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					14	1,634.67	22,885	12	$690	74.0%
Totals					**4,476**	**938.34**	**4,200,000**	**6.53**		**76.9%**

Sierra - Residential HVAC

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Year	**$902,000**	**137,452.78**	**232,884.62**	**531,662.60**						
Low Income - AC Tune Up					400	213.63	85,453	5	$0	100.0%
Low Income - HP Tune Up					5	384.05	1,920	5	$0	100.0%
Retrofit - AC Tune Up					800	205.73	164,586	5	$100	80.0%
Retrofit - HP Tune Up					1	796.00	796	5	$100	80.0%
Retrofit - AC Replacement					200	173.34	34,668	18	$1,202	72.0%
Retrofit - HP Replacement					40	947.74	37,910	15	$1,202	72.0%
ENERGY STAR Heat Pump Water Heater					7	2,089.50	14,627	14	$690	74.0%
Cold Climate Heat Pump					48	4,230.00	203,040	15	$7,500	72.0%
Totals					**1,501**	**361.76**	**543,000**	**10.03**	**$246**	**79.0%**

Nevada Power - Low Income QAR Measures									
2029	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$4,366,000**	**$645,296**	**$3,720,704**	**$ -**					
Refrigerator (QAR)					500	294.72	147,359	14.00	100.0%
Advanced Smart Strips (QAR)					510	178.75	91,162	10.00	100.0%
LED Lighting (QAR)					1,199	33.04	39,615	8.56	100.0%
Washer (QAR)					300	194.58	58,374	14.00	100.0%
Dryer (QAR)					199	390.37	77,684	14.00	100.0%
Freezer (QAR)					100	108.83	10,883	14.00	100.0%
Weatherization					499	49.00	24,451	18.00	100.0%
Total					**3,307**	**135.93**	**449,528**	**12.93**	**100.0%**

Sierra - Low Income QAR Measures

2029	**Total Expenditures**	**Utility Admin & M&V**	**Implementation Costs**	**Upstream Incentives**	**Number of Units**	**Annual Savings (kWh/unit)**	**Total Annual Savings (kWh)**	**Effective Useful Life**	**Net-to-Gross**
Measures	**$1,242,000**	**172,425.06**	**1,069,575.03**	**-**					
Refrigerator (QAR)					200	276.17	55,233	14.00	100.0%
Advanced Smart Strips (QAR)					200	167.00	33,400	10.00	100.0%
LED Lighting (QAR)					700	33.04	23,127	8.56	100.0%
Washer (QAR)					40	194.58	7,783	14.00	100.0%
Dryer (QAR)					36	368.73	13,274	14.00	100.0%
Freezer (QAR)					20	99.13	1,983	14.00	100.0%
Weatherization					300	49.00	14,700	18.00	100.0%
Total					**1,496**	**99.93**	**149,500**	**12.08**	**100.0%**

Nevada Power - Low Income DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					450	1.00	450.00	5.493	2,472.00	17.00	10.0	100.0%
Year	Totals					450	1.00	450	5.49	2,472	17.00	10.0	100.0%
2029	$140,000	$0	$138,248	$ -	$ 1,752								
2030	$132,752	$0	$131,000		$1,752								
2031	$132,752	$0	$131,000		$1,752								
2032	$132,752	$0	$131,000		$1,752								
2033	$160,065	$0	$131,000		$29,065								
2034	$160,065	$0	$131,000		$29,065								
2035	$160,065	$0	$131,000		$29,065								
2036	$160,065	$0	$131,000		$29,065								
2037	$160,065	$0	$131,000		$29,065								
2038	$160,065	$0	$131,000		$29,065								

Sierra - Low Income DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Low Income DR (Build)					260	0.50	130.00	5.769	1,500.00	48.00	10.0	100.0%
Year	Totals					260	0.50	130.00	5.77	1,500	48.00	10.0	100.0%
2029	$92,000	-	91,042.20	-	957.80								
2030	$86,958	$0	$86,000		$958								
2031	$86,958	$0	86,000		$958								
2032	$86,958	$0	86,000		$958								
2033	$103,947	$0	86,000		$17,947								
2034	$103,947	$0	86,000		$17,947								
2035	$103,947	$0	86,000		$17,947								
2036	$103,947	$0	86,000		$17,947								
2037	$103,947	$0	86,000		$17,947								
2038	$103,947	$0	86,000		$17,947								

Nevada Power - Residential DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)					18,881	1.357	25,621.52	289.93	5,474,105.98	10.20	10.0	95.0%
	Water Heaters					160	2.368	378.91	43.09	6,894.18	6.72	11.98	100.0%
Year	Totals					19,041	1.365	26,000	287.85	5,481,000		10.0	95.0%
2029	$9,768,000	$919,340	$8,086,972	$ -	$ 761,688								
2030	$2,290,851	$171,000	$1,358,163		$761,688								
2031	$2,290,851	$171,000	$1,358,163		$761,688								
2032	$2,290,851	$171,000	$1,358,163		$761,688								
2033	$2,971,892	$171,000	$1,358,163		$1,442,729								
2034	$2,971,892	$171,000	$1,358,163		$1,442,729								
2035	$2,971,892	$171,000	$1,358,163		$1,442,729								
2036	$2,971,892	$171,000	$1,358,163		$1,442,729								
2037	$2,971,892	$171,000	$1,358,163		$1,442,729								
2038	$2,971,892	$171,000	$1,358,163		$1,442,729								

Sierra - Residential DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates (Thermostat DR)	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostat DR (Build)					2,763	2.158	5,961.60	204.50	565,000.00	33.12	10.0	91.0%
	Water Heaters					20	1.920	38.40	-	-	16.09	11.6	100.0%
Year	Totals					2,783	2.156	6,000	203.02	565,000		10.0	91.0%
2029	$2,430,000	349,544	1,872,615	-	207,841								
2030	$436,453	$25,000	$203,612		$207,841								
2031	$436,453	$25,000	$203,612		$207,841								
2032	$436,453	$25,000	$203,612		$207,841								
2033	$513,790	$25,000	$203,612		$285,178								
2034	$513,790	$25,000	$203,612		$285,178								
2035	$513,790	$25,000	$203,612		$285,178								
2036	$513,790	$25,000	$203,612		$285,178								
2037	$513,790	$25,000	$203,612		$285,178								
2038	$513,790	$25,000	$203,612		$285,178								

Nevada Power - Battery Storage DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)					140	7.15	1,001.42	0.000	-	6.72	11.98	100.0%
Year	Totals					140	7.15	1,001	-	-	6.72	12.0	100.0%
2029	$705,000	$66,353	$407,481	$ -	$ 231,166								
2030	$108,500	$24,500	$49,000		$35,000								
2031	$108,500	$24,500	$49,000		$35,000								
2032	$108,500	$24,500	$49,000		$35,000								
2033	$108,500	$24,500	$49,000		$35,000								
2034	$108,500	$24,500	$49,000		$35,000								
2035	$108,500	$24,500	$49,000		$35,000								
2036	$108,500	$24,500	$49,000		$35,000								
2037	$108,500	$24,500	$49,000		$35,000								
2038	$108,500	$24,500	$49,000		$35,000								
2039	$108,500	$24,500	$49,000		$35,000								
2040	$108,500	$24,500	$49,000		$35,000								

Sierra - Battery Storage DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Battery Storage DR (Build)					62	8.55	530.00	0.000	-	24.83	11.6	100.0%
Year	Totals					62	8.55	530.00	-	-	24.83	11.6	100.0%
2029	$264,000	37,977	112,291	-	113,732								
2030	$33,971	$10,850	$21,700		$1,421								
2031	$33,971	$10,850	$21,700		$1,421								
2032	$33,971	$10,850	$21,700		$1,421								
2033	$59,182	$10,850	$21,700		$26,632								
2034	$59,182	$10,850	$21,700		$26,632								
2035	$59,182	$10,850	$21,700		$26,632								
2036	$59,182	$10,850	$21,700		$26,632								
2037	$59,182	$10,850	$21,700		$26,632								
2038	$59,182	$10,850	$21,700		$26,632								
2039	$59,182	$10,850	$21,700		$26,632								
2040	$59,182	$10,850	$21,700		$26,632								

1,834

Nevada Power - Residential DR Manage 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of	Capacity Savings (kW /	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					151,217	1.06	160,419.66	217.94	32,955,456	10.20	5.20	95.0%
	Battery Storage					335	7.15	2,396.26	0.00	-	6.72	11.98	100.0%
	Water Heaters					500	2.37	1,184.08	43.09	21,544	6.72	11.98	100.0%
Year	Totals					**152,052**	**1.08**	**164,000.00**	**216.88**	**32,977,000**		**5.2**	95.0%
2029	**$16,388,000**	**$1,576,761**	**$9,166,987**	$ -	**$5,644,252**								
2030	**$16,388,252**	$1,577,000	$9,167,000		$5,644,252								
2031	**$16,388,252**	$1,577,000	$9,167,000		$5,644,252								
2032	**$16,388,252**	$1,577,000	$9,167,000		$5,644,252								
2033	**$22,264,921**	$1,577,000	$9,167,000		$11,520,921								

Sierra - Residential DR Manage 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh)	Total Annual Savings (Therms/ unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					22,133	1.11	24,614.77	189.63	4,197,000	33.12	6.50	91.0%
	Battery Storage					149	8.55	1,273.87	-	-	16.09	11.60	100.0%
	Water Heaters					58	1.92	111.36	-	-	16.09	11.60	100.0%
Year	Totals					**22,340**	**1.16**	**26,000.00**	**187.87**	**4,197,000**		**6.5**	**91.0%**
2029	**$2,890,000**	**$307,337**	**$1,190,978**	$ -	**$1,391,685**								
2030	**$2,889,685**	307,000.00	$1,191,000		1,391,684.56								
2031	**$2,889,685**	307,000.00	$1,191,000		1,391,684.56								
2032	**$2,889,685**	307,000.00	$1,191,000		1,391,684.56								
2033	**$3,787,212**	307,000.00	$1,191,000		2,289,211.93								
2034	**$3,787,212**	307,000.00	$1,191,000		2,289,211.93								
2030	**$3,787,212**	307,000.00	$1,191,000		2,289,211.93								

Nevada Power - Energy Smart Schools

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$1,774,000**	**$235,387**	**$1,029,638**	**$ 508,975**						
CEI, Schools					9,000	1,000	9,000,000	1.0	$0.00	71.0%
Capital Projects					5,000	1,000	5,000,000	9.13	$243.93	77.0%
Total					**14,000**	**1,000**	**14,000,000**	**4.06**		**73.1%**

Sierra - Energy Smart Schools

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Number of Units	Annual Savings (kWh/unit)	Total Annual Savings (kWh)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$563,000**	**61,323.12**	**376,357.75**	**125,319.13**						
SEM (Behavioral)					1,450	1,000	1,450,000	1.0	$3.76	87.0%
Capital improvement projects					1,000	1,000	1,000,000	13.82	$167.58	64.0%
Total					**2,450**	**1,000**	**2,450,000**	**5.3**		**77.6%**

Nevada Power - Commercial DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ 278.96	442	9.05	4,000.00	257.92	114,000	-	10.0	-	96.0%
Year	Totals						442		4,000	258	114,000	-	10.0		96.0%
2029	$536,000	$60,252	$468,735	$ -	$ 7,013										
2030	$349,265	$60,252	$282,000		$7,013										
2031	$349,265	$60,252	$282,000		$7,013										
2032	$349,265	$60,252	$282,000		$7,013										
2033	$366,805	$60,252	$282,000		$24,553										
2034	$366,805	$60,252	$282,000		$24,553										
2035	$366,805	$60,252	$282,000		$24,553										
2036	$366,805	$60,252	$282,000		$24,553										
2037	$366,805	$60,252	$282,000		$24,553										
2038	$366,805	$60,252	$282,000		$24,553										

Sierra - Commercial DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ -	112	3.57	400.00	160.71	18,000	-	10.0	-	94.0%
Year	Totals						112	3.57	400.00	160.71	18,000		10.0		94.0%
2029	$207,000	31,755.81	173,121.26	-	2,122.93										
2030	$92,879	31,755.81	59,000.00		$2,123										
2031	$92,879	31,755.81	59,000.00		$2,123										
2032	$92,879	31,755.81	59,000.00		$2,123										
2033	$105,983	31,755.81	59,000.00		$15,227										
2034	$105,983	31,755.81	59,000.00		$15,227										
2035	$105,983	31,755.81	59,000.00		$15,227										
2036	$105,983	31,755.81	59,000.00		$15,227										
2037	$105,983	31,755.81	59,000.00		$15,227										
2038	$105,983	31,755.81	59,000.00		$15,227										

Nevada Power - Business Energy Services

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$16,559,000**	**$1,845,015**	**$7,262,435**	**$ -**	**$ 7,451,550**						
Commercial Measures					$7,451,550	87,570	1,000	87,570,000	12.0	$187.04	75.0%
Total					**$7,451,550**	**87,570**	**1,000**	**87,570,000**	**12.00**	**$187**	**75.0%**

Sierra - Business Energy Serivces

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Number of Units	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Effective Useful Life	Incremental Measure Cost per Unit	Net-to-Gross
Measures	**$5,737,000**	**717,152.44**	**2,868,500.00**	**-**	**2,151,347.56**						
Commercial Measures					$2,151,348	26,250	1,000	26,250,000	12.9	$175.77	75.0%
Total					**$2,151,348**	**26,250**	**1,000**	**26,250,000**	**12.90**	**$176**	**75.0%**

Nevada Power - Commercial DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ 278.96	442	9.05	4,000.00	257.92	114,000	-	10.0	-	96.0%
Year	Totals						442		4,000	258	114,000	-	10.0		96.0%
2029	$536,000	$60,252	$468,735	$ -	$ 7,013										
2030	$452,000	$47,200	$397,787		$7,013										
2031	$452,000	$47,200	$397,787		$7,013										
2032	$452,000	$47,200	$397,787		$7,013										
2033	$452,000	$47,200	$380,247		$24,553										
2034	$452,000	$47,200	$380,247		$24,553										
2035	$452,000	$47,200	$380,247		$24,553										
2036	$452,000	$47,200	$380,247		$24,553										
2037	$452,000	$47,200	$380,247		$24,553										
2038	$452,000	$47,200	$380,247		$24,553										

Sierra - Commercial DR Build 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh /	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure	Net-to-Gross**
Measures	Commercial DR Build					$ -	112	3.57	400.00	160.71	18,000	-	10.0	-	94.0%
Year	Totals						112	3.57	400.00	160.71	18,000		10.0		94.0%
2029	$207,000	31,755.81	173,121.26	-	2,122.93										
2030	$77,400	$18,000	$57,277		$2,123										
2031	$77,400	$18,000	$57,277		$2,123										
2032	$77,400	$18,000	$57,277		$2,123										
2033	$77,400	$18,000	$44,173		$15,227										
2034	$77,400	$18,000	$44,173		$15,227										
2035	$77,400	$18,000	$44,173		$15,227										
2036	$77,400	$18,000	$44,173		$15,227										
2037	$77,400	$18,000	$44,173		$15,227										
2038	$77,400	$18,000	$44,173		$15,227										

Nevada Power - Commercial DR Manage 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					12,760	0.776	9,906	462.16	5,897,061	-	5.00	96.0%
	School DR (Mng)					11,645	2.742	31,934	220.00	2,561,939		10.00	100.0%
	COE/LRG					160	26.000	4,160	200.00	32,000			
Year	Totals					**24,405**	**1.885**	**46,000**	**347.92**	**8,491,000**		6.6	96.8%
2029	**$2,454,000**	**$433,141**	**$1,603,255**	$ -	$ 417,604								
2030	**$2,454,000**	$433,141	$1,603,255		$ 417,604								
2031	**$2,454,000**	$433,141	$1,603,255		$ 417,604								
2032	**$2,454,000**	$433,141	$1,603,255		$ 417,604								
2033	**$3,392,067**	$433,141	$1,603,255		$ 1,355,671								

Sierra - Commercial DR Manage 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Upstream Incentives	Rebates	Total Number of Units*	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Net-to-Gross**
Measures	Thermostats DR (Mng)					6,985	0.956	6,680	168.14	1,174,492	-	4.00	94.0%
	School DR (Mng)					1,360	1.800	2,448	194.40	264,384		10.00	100.0%
	Agricultural DR (Mng)					177	36.000	6,372	552.00	97,704		10.00	100.0%
	COE					36	25.000	900	95.00	3,420			
Year	Totals					**8,558**	**1.916**	**16,400**	**179.94**	**1,540,000**		5.5	95.2%
2029	**$1,740,000**	**$375,202**	**$802,353**	$ -	$ 562,445								
2030	**$1,740,000**	$375,202	$802,353		$ 562,445								
2031	**$1,740,000**	$375,202	$802,353		$ 562,445								
2032	**$1,740,000**	$375,202	$802,353		$ 562,445								

Sierra - Agricultural DR 2029

2029	Total Expenditures	Utility Admin & M&V	Implementation Costs	Incentives	Rebates	Rebates per unit	Total Number of Units	Capacity Savings (kW / unit)	Capacity Savings (kW)	Annual Savings (kWh / unit)	Total Annual Savings (kWh / Year)	Annual Gas Savings (Therms/unit)	Effective Useful Life	Incremental Measure Cost Per	Net-to-Gross**
Measures	Agricultural Pump DR					$ 50.00	110	36.36	4,000.00	554.55	61,000	-	10.0	-	100.0%
Year	Totals						110		4,000.00		61,000		10.0		100.0%
2029	$1,193,000	$150,000	$609,281	-	$433,719										
2030	$1,192,719	$150,000	$609,000		433,719										
2031	$1,192,719	$150,000	$609,000		433,719										
2032	$1,192,719	$150,000	$609,000		433,719										
2033	$1,192,719	$150,000	$609,000		433,719										
2034	$1,192,719	$150,000	$609,000		433,719										
2035	$1,192,719	$150,000	$609,000		433,719										
2036	$1,192,719	$150,000	$609,000		433,719										
2037	$1,192,719	$150,000	$609,000		433,719										
2038	$1,192,719	$150,000	$609,000		433,719										

Name:	**Home Energy Reports**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,511,772	$777,000	$2,734,772	4.52	$0.037
NEB Total Resource Cost (NTRC)	$2,294,680	$777,000	$1,517,680	2.95	$0.037
Total Resource Cost (TRC)	$1,995,027	$777,000	$1,218,027	2.57	$0.037
Utility Cost Test (UCT)	$1,995,027	$777,000	$1,218,027	2.57	$0.037
Participant Cost Test (PCT)	$2,243,472	$0	$2,243,472	N/A	$0.000
Ratepayer Impact (RIM)	$1,995,027	$3,020,472	($1,025,445)	0.66	$0.145
Societal Cost (SCT)	$3,560,291	$777,000	$2,783,291	4.58	$0.037

Utility Savings & Costs*		**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)		$777,000	$0	$0	$777,000
Electric Benefits ($)		$1,899,406	$0	$0	$1,899,406
Gas Benefits ($)		$0	$0	$0	$0
Incremental Energy & Demand Savings:					
	Electric Savings (kWh)	20,852,697	0	0	20,852,697
	Critical Peak Hour Demand (kW)	5,269	0	0	5,269
	Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,400,412	$493,000	$907,412	2.84	$0.062
NEB Total Resource Cost (NTRC)	$921,003	$493,000	$428,003	1.87	$0.062
Total Resource Cost (TRC)	$800,803	$493,000	$307,803	1.62	$0.062
Utility Cost Test (UCT)	$800,803	$493,000	$307,803	1.62	$0.062
Participant Cost Test (PCT)	$806,344	$0	$806,344	N/A	$0.000
Ratepayer Impact (RIM)	$800,803	$1,299,344	($498,541)	0.62	$0.164
Societal Cost (SCT)	$1,418,498	$493,000	$925,498	2.88	$0.062

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$493,000	$0	$0	$493,000
Electric Benefits ($)	$778,118	$0	$0	$778,118
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	7,918,304	0	0	7,918,304
Critical Peak Hour Demand (kW)	2,444	0	0	2,444
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$2,426,967	$1,600,000	$826,967	1.52	$0.117
NEB Total Resource Cost (NTRC)	$1,631,195	$1,600,000	$31,195	1.02	$0.117
Total Resource Cost (TRC)	$1,414,740	$1,600,000	($185,260)	0.88	$0.117
Utility Cost Test (UCT)	$1,414,740	$1,600,000	($185,260)	0.88	$0.117
Participant Cost Test (PCT)	$1,445,264	$0	$1,445,264	N/A	$0.000
Ratepayer Impact (RIM)	$1,414,740	$2,952,275	($1,537,535)	0.48	$0.215
Societal Cost (SCT)	$2,457,078	$1,600,000	$857,078	1.54	$0.117

Utility Savings & Costs*	2027	2028	2029	Total Project
Total Utility Investment ($)	$1,600,000	$0	$0	$1,600,000
Electric Benefits ($)	$452,620	$0	$0	$1,365,004
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,240,209	0	0	13,704,571
Critical Peak Hour Demand (kW)	1,416	0	0	1,416
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	Scenarios	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.3000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	96.80%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$299,339	$429,000	($129,661)	0.70	$0.198
NEB Total Resource Cost (NTRC)	$171,182	$429,000	($257,818)	0.40	$0.198
Total Resource Cost (TRC)	$148,235	$429,000	($280,765)	0.35	$0.198
Utility Cost Test (UCT)	$148,235	$429,000	($280,765)	0.35	$0.198
Participant Cost Test (PCT)	$213,274	$0	$213,274	N/A	$0.000
Ratepayer Impact (RIM)	$148,235	$634,282	($486,047)	0.23	$0.293
Societal Cost (SCT)	$303,319	$429,000	($125,681)	0.71	$0.198

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$429,000	$0	$0	$429,000
Electric Benefits ($)	$63,961	$0	$0	$143,703
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	687,785	0	0	2,166,173
Critical Peak Hour Demand (kW)	193	0	0	193
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.4800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	98.59%		

Name:	**Home Energy Saver**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,440,067	$4,070,140	($630,073)	0.85	$0.174
NEB Total Resource Cost (NTRC)	$2,068,195	$4,070,140	($2,001,945)	0.51	$0.174
Total Resource Cost (TRC)	$1,778,633	$4,070,140	($2,291,507)	0.44	$0.174
Utility Cost Test (UCT)	$1,778,633	$2,089,000	($310,367)	0.85	$0.089
Participant Cost Test (PCT)	$3,402,903	$2,625,324	$777,579	1.30	$0.112
Ratepayer Impact (RIM)	$1,778,633	$4,279,331	($2,500,698)	0.42	$0.183
Societal Cost (SCT)	$3,490,643	$4,070,140	($579,497)	0.86	$0.174

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$2,089,000	$0	$0	$2,089,000
Electric Benefits ($)	$456,522	$0	$0	$1,683,901
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,943,170	0	0	23,433,876
Critical Peak Hour Demand (kW)	1,300	0	0	1,300
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	84.52%		

Name:	**Home Energy Saver**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,485,380	$2,470,225	$1,015,155	1.41	$0.084
NEB Total Resource Cost (NTRC)	$1,660,134	$2,470,225	($810,092)	0.67	$0.084
Total Resource Cost (TRC)	$1,443,595	$2,470,225	($1,026,631)	0.58	$0.084
Utility Cost Test (UCT)	$1,443,595	$861,000	$582,595	1.68	$0.029
Participant Cost Test (PCT)	$3,906,439	$2,144,764	$1,761,675	1.82	$0.073
Ratepayer Impact (RIM)	$1,443,595	$3,494,894	($2,051,299)	0.41	$0.120
Societal Cost (SCT)	$3,534,851	$2,470,225	$1,064,626	1.43	$0.084

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$861,000	$0	$0	$861,000
Electric Benefits ($)	$179,810	$0	$0	$1,422,707
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,813,995	0	0	29,239,869
Critical Peak Hour Demand (kW)	308	0	0	308
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	76.06%		

Name:	**Residential HVAC**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$4,281,854	$3,838,048	$443,805	1.12	$0.174
NEB Total Resource Cost (NTRC)	$3,072,320	$3,838,048	($765,729)	0.80	$0.174
Total Resource Cost (TRC)	$2,642,174	$3,838,048	($1,195,874)	0.69	$0.174
Utility Cost Test (UCT)	$2,642,174	$2,620,000	$22,174	1.01	$0.119
Participant Cost Test (PCT)	$4,083,887	$1,665,176	$2,418,711	2.45	$0.076
Ratepayer Impact (RIM)	$2,642,174	$4,674,520	($2,032,346)	0.57	$0.212
Societal Cost (SCT)	$4,329,244	$3,838,048	$491,195	1.13	$0.174

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$2,620,000	$0	$0	$2,620,000
Electric Benefits ($)	$452,635	$0	$0	$2,534,160
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,368,485	0	0	22,002,514
Critical Peak Hour Demand (kW)	1,604	0	0	1,604
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	76.86%		

Name:	**Residential HVAC**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,643,320	$1,279,560	$363,760	1.28	$0.282
NEB Total Resource Cost (NTRC)	$1,419,594	$1,279,560	$140,034	1.11	$0.282
Total Resource Cost (TRC)	$1,234,430	$1,279,560	($45,130)	0.96	$0.282
Utility Cost Test (UCT)	$1,234,430	$745,000	$489,430	1.66	$0.164
Participant Cost Test (PCT)	$965,875	$733,410	$232,465	1.32	$0.161
Ratepayer Impact (RIM)	$1,234,430	$1,143,876	$90,554	1.08	$0.252
Societal Cost (SCT)	$1,648,806	$1,279,560	$369,246	1.29	$0.282

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$745,000	$0	$0	$745,000
Electric Benefits ($)	$166,410	$0	$0	$1,214,539
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	453,163	0	0	4,544,310
Critical Peak Hour Demand (kW)	822	0	0	822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	79.00%		

Name:	**Low Income**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$819,347	$3,552,000	($2,732,653)	0.23	$0.584
NEB Total Resource Cost (NTRC)	$470,640	$3,552,000	($3,081,360)	0.13	$0.584
Total Resource Cost (TRC)	$376,512	$3,552,000	($3,175,488)	0.11	$0.584
Utility Cost Test (UCT)	$376,512	$3,552,000	($3,175,488)	0.11	$0.584
Participant Cost Test (PCT)	$521,091	$0	$521,091	N/A	$0.000
Ratepayer Impact (RIM)	$376,512	$4,073,091	($3,696,579)	0.09	$0.670
Societal Cost (SCT)	$831,698	$3,552,000	($2,720,302)	0.23	$0.584

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$3,552,000	$0	$0	$3,552,000
Electric Benefits ($)	$32,131	$0	$0	$346,037
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	468,895	0	0	6,079,588
Critical Peak Hour Demand (kW)	70	0	0	70
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$239,384	$1,034,000	($794,616)	0.23	$0.514
NEB Total Resource Cost (NTRC)	$125,470	$1,034,000	($908,530)	0.12	$0.514
Total Resource Cost (TRC)	$100,376	$1,034,000	($933,624)	0.10	$0.514
Utility Cost Test (UCT)	$100,376	$1,034,000	($933,624)	0.10	$0.514
Participant Cost Test (PCT)	$174,915	$0	$174,915	N/A	$0.000
Ratepayer Impact (RIM)	$100,376	$1,208,915	($1,108,539)	0.08	$0.601
Societal Cost (SCT)	$242,461	$1,034,000	($791,539)	0.23	$0.514

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$1,034,000	$0	$0	$1,034,000
Electric Benefits ($)	$10,499	$0	$0	$95,225
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	157,983	0	0	2,010,527
Critical Peak Hour Demand (kW)	23	0	0	23
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,071,106	$974,586	$96,520	1.10	$37.799
NEB Total Resource Cost (NTRC)	$1,069,564	$974,586	$94,978	1.10	$37.799
Total Resource Cost (TRC)	$855,651	$974,586	($118,935)	0.88	$37.799
Utility Cost Test (UCT)	$780,821	$1,090,841	($310,020)	0.72	$42.308
Participant Cost Test (PCT)	$213,279	$0	$213,279	N/A	$0.000
Ratepayer Impact (RIM)	$780,821	$1,187,865	($407,043)	0.66	$46.072
Societal Cost (SCT)	$1,074,902	$974,586	$100,316	1.10	$37.799

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$140,000	$132,752	$132,752	$1,498,644
Electric Benefits ($)	$97,847	$101,512	$100,982	$780,660
Gas Benefits ($)	$6,411	$6,411	$6,411	$47,339
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,578	2,578	2,578	25,783
Critical Peak Hour Demand (kW)	503	503	503	503
Gas Savings (therms)	7,650	7,650	7,650	76,500

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$324,138	$642,406	($318,268)	0.50	$40.613
NEB Total Resource Cost (NTRC)	$323,177	$642,406	($319,229)	0.50	$40.613
Total Resource Cost (TRC)	$258,542	$642,406	($383,864)	0.40	$40.613
Utility Cost Test (UCT)	$208,901	$714,147	($505,246)	0.29	$45.148
Participant Cost Test (PCT)	$157,247	$0	$157,247	N/A	$0.000
Ratepayer Impact (RIM)	$208,901	$799,653	($590,752)	0.26	$50.554
Societal Cost (SCT)	$326,644	$642,406	($315,762)	0.51	$40.613

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$92,000	$86,958	$86,958	$976,552
Electric Benefits ($)	$26,127	$27,123	$26,909	$208,882
Gas Benefits ($)	$5,672	$5,672	$5,672	$42,036
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,582	1,582	1,582	15,818
Critical Peak Hour Demand (kW)	145	145	145	145
Gas Savings (therms)	12,480	12,480	12,480	124,800

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Residential DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$48,271,341	$15,730,081	$32,541,260	3.07	$0.350
NEB Total Resource Cost (NTRC)	$45,585,696	$15,730,081	$29,855,615	2.90	$0.350
Total Resource Cost (TRC)	$39,632,843	$15,730,081	$23,902,762	2.52	$0.350
Utility Cost Test (UCT)	$38,143,697	$22,486,204	$15,657,493	1.70	$0.501
Participant Cost Test (PCT)	$13,067,266	$0	$13,067,266	N/A	$0.000
Ratepayer Impact (RIM)	$38,143,697	$28,452,831	$9,690,866	1.34	$0.634
Societal Cost (SCT)	$48,440,656	$15,698,559	$32,742,097	3.09	$0.350

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$8,073,000	$1,923,621	$1,923,621	$28,767,723
Electric Benefits ($)	$4,725,286	$4,900,323	$4,889,766	$37,863,778
Gas Benefits ($)	$127,579	$127,579	$127,579	$942,076
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,488,909	4,488,909	4,488,909	44,889,091
Critical Peak Hour Demand (kW)	23,362	23,362	23,362	23,362
Gas Savings (therms)	160,195	160,195	160,195	1,601,947

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.01%		

Name:	**Residential DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$9,149,699	$3,073,885	$6,075,814	2.98	$0.686
NEB Total Resource Cost (NTRC)	$8,877,436	$3,073,885	$5,803,552	2.89	$0.686
Total Resource Cost (TRC)	$7,718,839	$3,073,885	$4,644,954	2.51	$0.686
Utility Cost Test (UCT)	$7,443,583	$4,577,251	$2,866,331	1.63	$1.021
Participant Cost Test (PCT)	$2,477,207	$0	$2,477,207	N/A	$0.000
Ratepayer Impact (RIM)	$7,443,583	$5,449,574	$1,994,009	1.37	$1.216
Societal Cost (SCT)	$9,170,181	$3,058,399	$6,111,782	3.00	$0.682

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$2,008,000	$362,745	$362,745	$5,656,860
Electric Benefits ($)	$933,062	$964,868	$955,044	$7,438,249
Gas Benefits ($)	$31,432	$31,432	$31,432	$233,090
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	448,143	448,143	448,143	4,481,426
Critical Peak Hour Demand (kW)	5,080	5,080	5,080	5,080
Gas Savings (therms)	75,968	75,968	75,968	760,324

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Battery Storage DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2037.98	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,434,199	$1,618,570	$1,815,629	2.12	N/A
NEB Total Resource Cost (NTRC)	$3,434,199	$1,618,570	$1,815,629	2.12	N/A
Total Resource Cost (TRC)	$2,986,260	$1,618,570	$1,367,690	1.84	N/A
Utility Cost Test (UCT)	$2,970,702	$2,354,852	$615,850	1.26	N/A
Participant Cost Test (PCT)	$755,967	$0	$755,967	N/A	N/A
Ratepayer Impact (RIM)	$2,970,702	$2,374,537	$596,165	1.25	N/A
Societal Cost (SCT)	$3,434,977	$1,618,570	$1,816,407	2.12	N/A

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$1,158,000	$115,064	$115,064	$3,024,035
Electric Benefits ($)	$326,273	$338,498	$336,701	$2,970,702
Gas Benefits ($)	$1,183	$1,183	$1,183	$9,842
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	1,678	1,678	1,678	1,678
Gas Savings (therms)	1,411	1,411	1,411	16,934

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Battery Storagel DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,486,302	$569,375	$916,928	2.61	N/A
NEB Total Resource Cost (NTRC)	$1,486,302	$569,375	$916,928	2.61	N/A
Total Resource Cost (TRC)	$1,292,437	$569,375	$723,062	2.27	N/A
Utility Cost Test (UCT)	$1,283,304	$892,095	$391,208	1.44	N/A
Participant Cost Test (PCT)	$338,189	$0	$338,189	N/A	N/A
Ratepayer Impact (RIM)	$1,283,304	$907,563	$375,740	1.41	N/A
Societal Cost (SCT)	$1,486,759	$569,375	$917,384	2.61	N/A

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$403,000	$44,930	$44,930	$1,163,975
Electric Benefits ($)	$140,505	$145,944	$144,838	$1,283,304
Gas Benefits ($)	$925	$925	$925	$7,734
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	782	782	782	782
Gas Savings (therms)	2,036	2,036	2,036	24,430

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Residential DR Manage**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2031	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$188,163,682	$41,794,344	$146,369,339	4.50	$0.275
NEB Total Resource Cost (NTRC)	$179,286,978	$41,794,344	$137,492,634	4.29	$0.275
Total Resource Cost (TRC)	$155,874,611	$41,794,344	$114,080,267	3.73	$0.275
Utility Cost Test (UCT)	$148,011,678	$68,369,078	$79,642,600	2.16	$0.450
Participant Cost Test (PCT)	$53,244,525	$0	$53,244,525	N/A	$0.000
Ratepayer Impact (RIM)	$148,011,678	$93,458,092	$54,553,586	1.58	$0.616
Societal Cost (SCT)	$188,902,246	$41,532,835	$147,369,411	4.55	$0.274

Utility Savings & Costs*	2027	2028	2029	Total Project
Total Utility Investment ($)	$14,776,000	$14,776,173	$14,776,173	$79,326,230
Electric Benefits ($)	$32,408,375	$33,610,205	$33,536,913	$147,036,757
Gas Benefits ($)	$1,143,303	$1,143,303	$1,143,303	$4,974,317
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	30,365,687	30,365,687	30,365,687	151,828,435
Critical Peak Hour Demand (kW)	160,266	160,266	160,266	160,266
Gas Savings (therms)	1,435,977	1,435,977	1,435,977	7,179,883

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.00%		

Name:	**Residential DR Manage**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2033	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$30,606,530	$5,999,299	$24,607,230	5.10	$0.216
NEB Total Resource Cost (NTRC)	$28,936,893	$5,999,299	$22,937,593	4.82	$0.216
Total Resource Cost (TRC)	$25,160,328	$5,999,299	$19,161,028	4.19	$0.216
Utility Cost Test (UCT)	$23,241,617	$15,036,103	$8,205,514	1.55	$0.540
Participant Cost Test (PCT)	$15,604,354	$0	$15,604,354	N/A	$0.000
Ratepayer Impact (RIM)	$23,241,617	$20,907,232	$2,334,385	1.11	$0.751
Societal Cost (SCT)	$30,747,267	$5,882,777	$24,864,490	5.23	$0.211

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$2,325,000	$2,324,690	$2,324,690	$18,780,062
Electric Benefits ($)	$3,834,331	$3,946,906	$3,894,211	$23,206,027
Gas Benefits ($)	$284,281	$284,281	$284,281	$1,624,784
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,976,981	3,976,981	3,976,981	27,838,865
Critical Peak Hour Demand (kW)	20,339	20,339	20,339	20,339
Gas Savings (therms)	687,259	687,259	687,259	4,815,882

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Schools Program**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,820,365	$2,074,141	$3,746,224	2.81	$0.048
NEB Total Resource Cost (NTRC)	$3,626,966	$2,074,141	$1,552,825	1.75	$0.048
Total Resource Cost (TRC)	$2,933,964	$2,074,141	$859,822	1.41	$0.048
Utility Cost Test (UCT)	$2,933,964	$1,135,000	$1,798,964	2.58	$0.027
Participant Cost Test (PCT)	$4,937,232	$1,219,664	$3,717,568	4.05	$0.028
Ratepayer Impact (RIM)	$2,933,964	$4,633,659	($1,699,696)	0.63	$0.108
Societal Cost (SCT)	$5,912,400	$2,074,141	$3,838,259	2.85	$0.048

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$1,135,000	$0	$0	$1,135,000
Electric Benefits ($)	$739,790	$0	$0	$2,529,930
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	10,695,528	0	0	42,818,282
Critical Peak Hour Demand (kW)	1,822	0	0	1,822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	73.14%		

Name:	**Schools Program**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,461,524	$576,992	$884,532	2.53	$0.053
NEB Total Resource Cost (NTRC)	$916,087	$576,992	$339,095	1.59	$0.053
Total Resource Cost (TRC)	$780,246	$576,992	$203,255	1.35	$0.053
Utility Cost Test (UCT)	$780,246	$465,000	$315,246	1.68	$0.043
Participant Cost Test (PCT)	$1,272,058	$173,028	$1,099,031	7.35	$0.016
Ratepayer Impact (RIM)	$780,246	$1,242,286	($462,039)	0.63	$0.115
Societal Cost (SCT)	$1,477,998	$576,992	$901,006	2.56	$0.053

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$465,000	$0	$0	$465,000
Electric Benefits ($)	$146,831	$0	$0	$721,524
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,012,728	0	0	10,795,590
Critical Peak Hour Demand (kW)	410	0	0	410
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	77.63%		

Name:	**Schools DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$33,695,498	$13,952,911	$19,742,587	2.41	$0.817
NEB Total Resource Cost (NTRC)	$32,756,045	$13,952,911	$18,803,133	2.35	$0.817
Total Resource Cost (TRC)	$26,497,367	$13,952,911	$12,544,455	1.90	$0.817
Utility Cost Test (UCT)	$26,497,367	$15,507,307	$10,990,060	1.71	$0.908
Participant Cost Test (PCT)	$2,947,940	$0	$2,947,940	N/A	$0.000
Ratepayer Impact (RIM)	$26,497,367	$16,844,209	$9,653,157	1.57	$0.986
Societal Cost (SCT)	$33,731,210	$13,951,973	$19,779,237	2.42	$0.817

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$4,375,000	$1,527,206	$1,527,206	$20,312,258
Electric Benefits ($)	$3,295,948	$3,421,222	$3,411,214	$26,386,576
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,708,196	1,708,196	1,708,196	17,081,963
Critical Peak Hour Demand (kW)	16,618	16,618	16,618	16,618
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Schools DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$0	$0	$0	N/A	N/A
NEB Total Resource Cost (NTRC)	$0	$0	$0	N/A	N/A
Total Resource Cost (TRC)	$0	$0	$0	N/A	N/A
Utility Cost Test (UCT)	$0	$0	$0	N/A	N/A
Participant Cost Test (PCT)	$0	$0	$0	N/A	N/A
Ratepayer Impact (RIM)	$0	$0	$0	N/A	N/A
Societal Cost (SCT)	$0	$0	$0	N/A	N/A

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$0	$0	$0	$0
Electric Benefits ($)	$0	$0	$0	$0
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	0	0	0	0
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$101,104,968	$19,811,358	$81,293,610	5.10	$0.024
NEB Total Resource Cost (NTRC)	$52,903,384	$19,811,358	$33,092,027	2.67	$0.024
Total Resource Cost (TRC)	$48,093,986	$19,811,358	$28,282,628	2.43	$0.024
Utility Cost Test (UCT)	$48,093,986	$7,526,750	$40,567,236	6.39	$0.009
Participant Cost Test (PCT)	$82,710,839	$16,379,477	$66,331,362	5.05	$0.020
Ratepayer Impact (RIM)	$48,093,986	$69,559,879	($21,465,894)	0.69	$0.085
Societal Cost (SCT)	$102,792,072	$19,811,358	$82,980,715	5.19	$0.024

Utility Savings & Costs*	2027	2028	2029	Total Project
Total Utility Investment ($)	$7,526,750	$0	$0	$7,526,750
Electric Benefits ($)	$4,205,792	$0	$0	$43,947,587
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	68,470,530	0	0	821,646,354
Critical Peak Hour Demand (kW)	8,105	0	0	8,105
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	Scenarios	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	75.00%		

Name:	**Business Energy Services**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2027	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$30,322,845	$6,885,857	$23,436,989	4.40	$0.026
NEB Total Resource Cost (NTRC)	$15,319,427	$6,885,857	$8,433,571	2.22	$0.026
Total Resource Cost (TRC)	$13,926,752	$6,885,857	$7,040,895	2.02	$0.026
Utility Cost Test (UCT)	$13,926,752	$4,741,000	$9,185,752	2.94	$0.018
Participant Cost Test (PCT)	$27,420,920	$4,613,979	$22,806,941	5.94	$0.017
Ratepayer Impact (RIM)	$13,926,752	$23,991,063	($10,064,311)	0.58	$0.089
Societal Cost (SCT)	$30,750,235	$6,447,314	$24,302,921	4.77	$0.024

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$4,741,000	$0	$0	$4,741,000
Electric Benefits ($)	$1,339,471	$0	$0	$12,821,563
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,767,880	0	0	269,982,445
Critical Peak Hour Demand (kW)	3,094	0	0	3,094
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	75.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,589,599	$2,102,960	$3,486,639	2.66	$2.435
NEB Total Resource Cost (NTRC)	$5,542,102	$2,102,960	$3,439,142	2.64	$2.435
Total Resource Cost (TRC)	$5,026,394	$2,102,960	$2,923,434	2.39	$2.435
Utility Cost Test (UCT)	$5,026,394	$2,191,217	$2,835,177	2.29	$2.537
Participant Cost Test (PCT)	$158,875	$0	$158,875	N/A	$0.000
Ratepayer Impact (RIM)	$5,026,394	$2,258,808	$2,767,585	2.23	$2.615
Societal Cost (SCT)	$5,591,405	$2,102,750	$3,488,655	2.66	$2.435

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$443,000	$266,050	$266,050	$2,916,258
Electric Benefits ($)	$628,786	$652,437	$649,385	$5,020,792
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	86,364	86,364	86,364	863,638
Critical Peak Hour Demand (kW)	3,216	3,216	3,216	3,216
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Commercial DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$511,701	$626,193	($114,492)	0.82	$4.217
NEB Total Resource Cost (NTRC)	$502,938	$626,193	($123,255)	0.80	$4.217
Total Resource Cost (TRC)	$457,216	$626,193	($168,977)	0.73	$4.217
Utility Cost Test (UCT)	$457,216	$675,294	($218,078)	0.68	$4.547
Participant Cost Test (PCT)	$60,895	$0	$60,895	N/A	$0.000
Ratepayer Impact (RIM)	$457,216	$686,291	($229,074)	0.67	$4.621
Societal Cost (SCT)	$511,956	$626,098	($114,142)	0.82	$4.216

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$171,000	$72,825	$72,825	$885,396
Electric Benefits ($)	$57,112	$59,370	$58,763	$456,733
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	14,851	14,851	14,851	148,508
Critical Peak Hour Demand (kW)	315	315	315	315
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.00%		

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2031	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$14,894,232	$3,139,471	$11,754,761	4.74	$0.103
NEB Total Resource Cost (NTRC)	$13,199,539	$3,139,471	$10,060,067	4.20	$0.103
Total Resource Cost (TRC)	$11,971,285	$3,139,471	$8,831,814	3.81	$0.103
Utility Cost Test (UCT)	$11,971,285	$4,122,069	$7,849,216	2.90	$0.135
Participant Cost Test (PCT)	$3,711,603	$0	$3,711,603	N/A	$0.000
Ratepayer Impact (RIM)	$11,971,285	$6,736,007	$5,235,278	1.78	$0.221
Societal Cost (SCT)	$14,961,336	$3,132,914	$11,828,422	4.78	$0.103

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$884,000	$884,000	$884,000	$4,788,231
Electric Benefits ($)	$2,588,955	$2,688,467	$2,700,204	$11,813,232
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	6,092,034	6,092,034	6,092,034	30,460,170
Critical Peak Hour Demand (kW)	12,073	12,073	12,073	12,073
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.01%		

Name:	**Commercial DR Manage**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2030	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,956,711	$1,247,770	$4,708,940	4.77	$0.224
NEB Total Resource Cost (NTRC)	$5,661,308	$1,247,770	$4,413,538	4.54	$0.224
Total Resource Cost (TRC)	$5,146,643	$1,247,770	$3,898,873	4.12	$0.224
Utility Cost Test (UCT)	$5,146,643	$2,197,074	$2,949,570	2.34	$0.394
Participant Cost Test (PCT)	$1,439,647	$0	$1,439,647	N/A	$0.000
Ratepayer Impact (RIM)	$5,146,643	$2,643,124	$2,503,519	1.95	$0.474
Societal Cost (SCT)	$5,966,534	$1,231,724	$4,734,810	4.84	$0.221

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$609,000	$609,000	$609,000	$2,437,110
Electric Benefits ($)	$1,384,799	$1,431,819	$1,413,759	$5,126,791
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,394,085	1,394,085	1,394,085	5,576,339
Critical Peak Hour Demand (kW)	7,403	7,403	7,403	7,403
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.04%		

Name:	**Agricultural DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2027	**DSMore Market Based**	
End Year:	2036	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,331,570	$3,987,217	$1,344,353	1.34	$10.097
NEB Total Resource Cost (NTRC)	$5,301,954	$3,987,217	$1,314,737	1.33	$10.097
Total Resource Cost (TRC)	$4,819,959	$3,987,217	$832,741	1.21	$10.097
Utility Cost Test (UCT)	$4,819,959	$6,032,799	($1,212,841)	0.80	$15.277
Participant Cost Test (PCT)	$2,074,824	$0	$2,074,824	N/A	$0.000
Ratepayer Impact (RIM)	$4,819,959	$6,062,041	($1,242,083)	0.80	$15.351
Societal Cost (SCT)	$5,332,076	$3,987,217	$1,344,859	1.34	$10.097

Utility Savings & Costs*	**2027**	**2028**	**2029**	**Total Project**
Total Utility Investment ($)	$814,000	$814,012	$814,012	$8,140,108
Electric Benefits ($)	$604,347	$625,770	$621,112	$4,822,065
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	39,490	39,490	39,490	394,904
Critical Peak Hour Demand (kW)	3,347	3,347	3,347	3,347
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,345,268	$893,000	$2,452,268	3.75	$0.043
NEB Total Resource Cost (NTRC)	$2,173,394	$893,000	$1,280,394	2.43	$0.043
Total Resource Cost (TRC)	$1,889,579	$893,000	$996,579	2.12	$0.043
Utility Cost Test (UCT)	$1,889,579	$893,000	$996,579	2.12	$0.043
Participant Cost Test (PCT)	$2,245,586	$0	$2,245,586	N/A	$0.000
Ratepayer Impact (RIM)	$1,889,579	$3,138,586	($1,249,007)	0.60	$0.150
Societal Cost (SCT)	$3,387,072	$893,000	$2,494,072	3.79	$0.043

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$893,000	$0	$0	$893,000
Electric Benefits ($)	$1,786,582	$0	$0	$1,786,582
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,872,343	0	0	20,872,343
Critical Peak Hour Demand (kW)	5,269	0	0	5,269
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$1,350,091	$542,000	$808,091	2.49	$0.068
NEB Total Resource Cost (NTRC)	$891,108	$542,000	$349,108	1.64	$0.068
Total Resource Cost (TRC)	$774,809	$542,000	$232,809	1.43	$0.068
Utility Cost Test (UCT)	$774,809	$542,000	$232,809	1.43	$0.068
Participant Cost Test (PCT)	$806,874	$0	$806,874	N/A	$0.000
Ratepayer Impact (RIM)	$774,809	$1,348,874	($574,066)	0.57	$0.170
Societal Cost (SCT)	$1,366,208	$542,000	$824,208	2.52	$0.068

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$542,000	$0	$0	$542,000
Electric Benefits ($)	$744,124	$0	$0	$744,124
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	7,923,517	0	0	7,923,517
Critical Peak Hour Demand (kW)	2,444	0	0	2,444
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$2,386,699	$1,733,000	$653,699	1.38	$0.126
NEB Total Resource Cost (NTRC)	$1,545,876	$1,733,000	($187,124)	0.89	$0.126
Total Resource Cost (TRC)	$1,340,742	$1,733,000	($392,258)	0.77	$0.126
Utility Cost Test (UCT)	$1,340,742	$1,733,000	($392,258)	0.77	$0.126
Participant Cost Test (PCT)	$1,445,492	$0	$1,445,492	N/A	$0.000
Ratepayer Impact (RIM)	$1,340,742	$3,085,486	($1,744,744)	0.43	$0.225
Societal Cost (SCT)	$2,412,655	$1,733,000	$679,655	1.39	$0.126

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$1,733,000	$0	$0	$1,733,000
Electric Benefits ($)	$432,283	$0	$0	$1,284,820
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,240,935	0	0	13,706,734
Critical Peak Hour Demand (kW)	1,416	0	0	1,416
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.3000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	96.80%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$299,048	$472,000	($172,952)	0.63	$0.218
NEB Total Resource Cost (NTRC)	$164,887	$472,000	($307,113)	0.35	$0.218
Total Resource Cost (TRC)	$142,784	$472,000	($329,216)	0.30	$0.218
Utility Cost Test (UCT)	$142,784	$472,000	($329,216)	0.30	$0.218
Participant Cost Test (PCT)	$213,034	$0	$213,034	N/A	$0.000
Ratepayer Impact (RIM)	$142,784	$677,052	($534,268)	0.21	$0.313
Societal Cost (SCT)	$302,706	$472,000	($169,294)	0.64	$0.218

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$472,000	$0	$0	$472,000
Electric Benefits ($)	$60,928	$0	$0	$136,263
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	687,190	0	0	2,163,719
Critical Peak Hour Demand (kW)	193	0	0	193
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.4800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	98.59%		

Name:	**Home Energy Saver**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,369,083	$4,279,140	($910,057)	0.79	$0.183
NEB Total Resource Cost (NTRC)	$1,913,507	$4,279,140	($2,365,633)	0.45	$0.183
Total Resource Cost (TRC)	$1,645,603	$4,279,140	($2,633,537)	0.38	$0.183
Utility Cost Test (UCT)	$1,645,603	$2,298,000	($652,397)	0.72	$0.098
Participant Cost Test (PCT)	$3,464,629	$2,625,324	$839,305	1.32	$0.112
Ratepayer Impact (RIM)	$1,645,603	$4,488,171	($2,842,568)	0.37	$0.192
Societal Cost (SCT)	$3,412,688	$4,279,140	($866,451)	0.80	$0.183

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$2,298,000	$0	$0	$2,298,000
Electric Benefits ($)	$431,141	$0	$0	$1,543,520
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,944,275	0	0	23,431,435
Critical Peak Hour Demand (kW)	1,300	0	0	1,300
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	84.62%		

Name:	**Home Energy Saver**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$3,466,240	$2,556,225	$910,015	1.36	$0.088
NEB Total Resource Cost (NTRC)	$1,525,127	$2,556,225	($1,031,099)	0.60	$0.088
Total Resource Cost (TRC)	$1,326,197	$2,556,225	($1,230,028)	0.52	$0.088
Utility Cost Test (UCT)	$1,326,197	$947,000	$379,197	1.40	$0.032
Participant Cost Test (PCT)	$3,947,454	$2,144,764	$1,802,690	1.84	$0.073
Ratepayer Impact (RIM)	$1,326,197	$3,577,425	($2,251,228)	0.37	$0.123
Societal Cost (SCT)	$3,509,634	$2,556,225	$953,408	1.37	$0.088

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$947,000	$0	$0	$947,000
Electric Benefits ($)	$164,086	$0	$0	$1,278,476
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,810,289	0	0	29,201,360
Critical Peak Hour Demand (kW)	308	0	0	308
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	76.06%		

Name:	**Residential HVAC**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$4,249,423	$4,100,048	$149,375	1.04	$0.186
NEB Total Resource Cost (NTRC)	$2,945,726	$4,100,048	($1,154,322)	0.72	$0.186
Total Resource Cost (TRC)	$2,533,304	$4,100,048	($1,566,744)	0.62	$0.186
Utility Cost Test (UCT)	$2,533,304	$2,882,000	($348,696)	0.88	$0.131
Participant Cost Test (PCT)	$4,221,894	$1,665,176	$2,556,718	2.54	$0.076
Ratepayer Impact (RIM)	$2,533,304	$4,935,975	($2,402,671)	0.51	$0.224
Societal Cost (SCT)	$4,290,197	$4,100,048	$190,149	1.05	$0.186

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$2,882,000	$0	$0	$2,882,000
Electric Benefits ($)	$438,318	$0	$0	$2,419,810
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,367,592	0	0	21,996,680
Critical Peak Hour Demand (kW)	1,604	0	0	1,604
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	76.86%		

Name:	**Residential HVAC**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$1,756,871	$1,354,560	$402,311	1.30	$0.299
NEB Total Resource Cost (NTRC)	$1,512,722	$1,354,560	$158,163	1.12	$0.299
Total Resource Cost (TRC)	$1,315,411	$1,354,560	($39,149)	0.97	$0.299
Utility Cost Test (UCT)	$1,315,411	$820,000	$495,411	1.60	$0.181
Participant Cost Test (PCT)	$1,008,882	$733,410	$275,472	1.38	$0.162
Ratepayer Impact (RIM)	$1,315,411	$1,217,967	$97,444	1.08	$0.269
Societal Cost (SCT)	$1,765,612	$1,354,560	$411,052	1.30	$0.299

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$820,000	$0	$0	$820,000
Electric Benefits ($)	$167,567	$0	$0	$1,273,842
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	452,130	0	0	4,533,953
Critical Peak Hour Demand (kW)	822	0	0	822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	79.00%		

Name:	**Low Income**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$801,284	$3,940,000	($3,138,716)	0.20	$0.648
NEB Total Resource Cost (NTRC)	$430,049	$3,940,000	($3,509,951)	0.11	$0.648
Total Resource Cost (TRC)	$344,039	$3,940,000	($3,595,961)	0.09	$0.648
Utility Cost Test (UCT)	$344,039	$3,940,000	($3,595,961)	0.09	$0.648
Participant Cost Test (PCT)	$521,050	$0	$521,050	N/A	$0.000
Ratepayer Impact (RIM)	$344,039	$4,461,050	($4,117,011)	0.08	$0.734
Societal Cost (SCT)	$811,939	$3,940,000	($3,128,061)	0.21	$0.648

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$3,940,000	$0	$0	$3,940,000
Electric Benefits ($)	$29,657	$0	$0	$314,283
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	468,858	0	0	6,079,108
Critical Peak Hour Demand (kW)	70	0	0	70
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$243,455	$1,119,000	($875,545)	0.22	$0.557
NEB Total Resource Cost (NTRC)	$122,231	$1,119,000	($996,769)	0.11	$0.557
Total Resource Cost (TRC)	$97,785	$1,119,000	($1,021,215)	0.09	$0.557
Utility Cost Test (UCT)	$97,785	$1,119,000	($1,021,215)	0.09	$0.557
Participant Cost Test (PCT)	$174,730	$0	$174,730	N/A	$0.000
Ratepayer Impact (RIM)	$97,785	$1,293,730	($1,195,945)	0.08	$0.644
Societal Cost (SCT)	$246,379	$1,119,000	($872,621)	0.22	$0.557

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$1,119,000	$0	$0	$1,119,000
Electric Benefits ($)	$9,765	$0	$0	$91,406
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	157,816	0	0	2,008,397
Critical Peak Hour Demand (kW)	23	0	0	23
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,078,593	$974,586	$104,008	1.11	$37.846
NEB Total Resource Cost (NTRC)	$1,076,940	$974,586	$102,355	1.11	$37.846
Total Resource Cost (TRC)	$861,552	$974,586	($113,034)	0.88	$37.846
Utility Cost Test (UCT)	$786,722	$1,090,841	($304,119)	0.72	$42.361
Participant Cost Test (PCT)	$213,276	$0	$213,276	N/A	$0.000
Ratepayer Impact (RIM)	$786,722	$1,187,862	($401,139)	0.66	$46.128
Societal Cost (SCT)	$1,082,381	$974,586	$107,796	1.11	$37.846

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$140,000	$132,752	$132,752	$1,498,644
Electric Benefits ($)	$100,583	$100,027	$103,378	$786,580
Gas Benefits ($)	$6,411	$6,411	$6,411	$47,339
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,575	2,575	2,575	25,751
Critical Peak Hour Demand (kW)	503	503	503	503
Gas Savings (therms)	7,650	7,650	7,650	76,500

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$326,432	$642,406	($315,974)	0.51	$40.570
NEB Total Resource Cost (NTRC)	$325,403	$642,406	($317,003)	0.51	$40.570
Total Resource Cost (TRC)	$260,323	$642,406	($382,083)	0.41	$40.570
Utility Cost Test (UCT)	$210,682	$714,147	($503,465)	0.30	$45.101
Participant Cost Test (PCT)	$157,248	$0	$157,248	N/A	$0.000
Ratepayer Impact (RIM)	$210,682	$799,654	($588,973)	0.26	$50.501
Societal Cost (SCT)	$328,939	$642,406	($313,467)	0.51	$40.570

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$92,000	$86,958	$86,958	$976,552
Electric Benefits ($)	$26,909	$26,690	$27,608	$210,634
Gas Benefits ($)	$5,672	$5,672	$5,672	$42,036
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,583	1,583	1,583	15,834
Critical Peak Hour Demand (kW)	145	145	145	145
Gas Savings (therms)	12,480	12,480	12,480	124,800

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Residential DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2039	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$52,942,709	$17,234,305	$35,708,404	3.07	$0.349
NEB Total Resource Cost (NTRC)	$49,775,373	$17,234,305	$32,541,068	2.89	$0.349
Total Resource Cost (TRC)	$43,275,407	$17,234,305	$26,041,102	2.51	$0.349
Utility Cost Test (UCT)	$41,638,143	$24,660,451	$16,977,691	1.69	$0.500
Participant Cost Test (PCT)	$14,361,704	$0	$14,361,704	N/A	$0.000
Ratepayer Impact (RIM)	$41,638,143	$31,217,314	$10,420,829	1.33	$0.633
Societal Cost (SCT)	$53,114,127	$17,199,658	$35,914,469	3.09	$0.349

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$8,880,000	$2,104,656	$2,104,656	$31,539,463
Electric Benefits ($)	$5,266,528	$5,242,707	$5,425,885	$41,365,588
Gas Benefits ($)	$140,269	$140,269	$140,269	$1,035,780
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,931,841	4,931,841	4,931,841	49,318,406
Critical Peak Hour Demand (kW)	25,485	25,485	25,485	25,485
Gas Savings (therms)	176,134	176,134	176,134	1,761,341

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.01%		

Name:	**Residential DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2039	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$10,171,338	$3,086,433	$7,084,905	3.30	$0.626
NEB Total Resource Cost (NTRC)	$9,851,234	$3,086,433	$6,764,802	3.19	$0.626
Total Resource Cost (TRC)	$8,565,546	$3,086,433	$5,479,113	2.78	$0.626
Utility Cost Test (UCT)	$8,263,316	$4,736,612	$3,526,704	1.74	$0.961
Participant Cost Test (PCT)	$2,720,209	$0	$2,720,209	N/A	$0.000
Ratepayer Impact (RIM)	$8,263,316	$5,695,091	$2,568,225	1.45	$1.156
Societal Cost (SCT)	$10,194,291	$3,069,434	$7,124,857	3.32	$0.623

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$1,914,233	$398,516	$398,516	$5,922,549
Electric Benefits ($)	$1,053,241	$1,042,215	$1,078,416	$8,248,487
Gas Benefits ($)	$34,514	$34,514	$34,514	$255,931
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	492,800	492,800	492,800	4,928,005
Critical Peak Hour Demand (kW)	5,588	5,588	5,588	5,588
Gas Savings (therms)	83,420	83,420	83,420	834,844

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Battery Storage DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2038.98	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$2,314,055	$1,012,047	$1,302,008	2.29	N/A
NEB Total Resource Cost (NTRC)	$2,314,055	$1,012,047	$1,302,008	2.29	N/A
Total Resource Cost (TRC)	$2,012,222	$1,012,047	$1,000,175	1.99	N/A
Utility Cost Test (UCT)	$2,001,850	$1,502,901	$498,948	1.33	N/A
Participant Cost Test (PCT)	$503,978	$0	$503,978	N/A	N/A
Ratepayer Impact (RIM)	$2,001,850	$1,516,025	$485,825	1.32	N/A
Societal Cost (SCT)	$2,314,574	$1,012,047	$1,302,527	2.29	N/A

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$705,000	$76,710	$76,710	$1,949,023
Electric Benefits ($)	$223,638	$222,394	$229,835	$2,001,850
Gas Benefits ($)	$788	$788	$788	$6,562
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	1,118	1,118	1,118	1,118
Gas Savings (therms)	941	941	941	11,290

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Battery Storagel DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2039	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,136,717	$362,669	$774,048	3.13	N/A
NEB Total Resource Cost (NTRC)	$1,136,717	$362,669	$774,048	3.13	N/A
Total Resource Cost (TRC)	$988,450	$362,669	$625,781	2.73	N/A
Utility Cost Test (UCT)	$981,544	$606,677	$374,867	1.62	N/A
Participant Cost Test (PCT)	$255,704	$0	$255,704	N/A	N/A
Ratepayer Impact (RIM)	$981,544	$618,373	$363,171	1.59	N/A
Societal Cost (SCT)	$1,137,062	$362,669	$774,393	3.14	N/A

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$236,873	$33,971	$33,971	$812,245
Electric Benefits ($)	$109,460	$108,604	$112,337	$981,544
Gas Benefits ($)	$700	$700	$700	$5,848
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	591	591	591	591
Gas Savings (therms)	1,539	1,539	1,539	18,472

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Residential DR Manage**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2032	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$197,590,634	$44,649,178	$152,941,455	4.43	$0.285
NEB Total Resource Cost (NTRC)	$187,711,703	$44,649,178	$143,062,525	4.20	$0.285
Total Resource Cost (TRC)	$163,199,185	$44,649,178	$118,550,007	3.66	$0.285
Utility Cost Test (UCT)	$155,066,424	$72,152,444	$82,913,980	2.15	$0.461
Participant Cost Test (PCT)	$55,049,045	$0	$55,049,045	N/A	$0.000
Ratepayer Impact (RIM)	$155,066,424	$98,065,832	$57,000,592	1.58	$0.626
Societal Cost (SCT)	$198,303,551	$44,378,533	$153,925,018	4.47	$0.283

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$15,613,000	$15,612,917	$15,612,917	$83,700,476
Electric Benefits ($)	$34,425,471	$34,269,729	$35,465,403	$154,147,881
Gas Benefits ($)	$1,182,538	$1,182,538	$1,182,538	$5,145,018
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	31,334,339	31,334,339	31,334,339	156,671,694
Critical Peak Hour Demand (kW)	166,724	166,724	166,724	166,724
Gas Savings (therms)	1,485,153	1,485,153	1,485,153	7,425,767

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.46%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.00%		

Name:	**Residential DR Manage**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2034	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$35,606,177	$7,285,363	$28,320,814	4.89	$0.261
NEB Total Resource Cost (NTRC)	$33,808,867	$7,285,363	$26,523,505	4.64	$0.261
Total Resource Cost (TRC)	$29,396,459	$7,285,363	$22,111,096	4.04	$0.261
Utility Cost Test (UCT)	$27,363,989	$16,863,976	$10,500,013	1.62	$0.604
Participant Cost Test (PCT)	$16,370,537	$0	$16,370,537	N/A	$0.000
Ratepayer Impact (RIM)	$27,363,989	$22,933,842	$4,430,147	1.19	$0.822
Societal Cost (SCT)	$35,753,997	$7,161,832	$28,592,165	4.99	$0.257

Utility Savings & Costs*	2028	2029	2030	Total Project
Total Utility Investment ($)	$2,626,631	$2,626,560	$2,626,560	$21,041,570
Electric Benefits ($)	$4,492,673	$4,434,771	$4,590,538	$27,277,771
Gas Benefits ($)	$300,860	$300,860	$300,860	$1,721,117
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,986,192	3,986,192	3,986,192	27,903,345
Critical Peak Hour Demand (kW)	23,448	23,448	23,448	23,448
Gas Savings (therms)	727,211	727,211	727,211	5,102,383

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Schools Program**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,668,435	$2,358,141	$3,310,294	2.40	$0.055
NEB Total Resource Cost (NTRC)	$3,324,511	$2,358,141	$966,370	1.41	$0.055
Total Resource Cost (TRC)	$2,689,299	$2,358,141	$331,157	1.14	$0.055
Utility Cost Test (UCT)	$2,689,299	$1,419,000	$1,270,299	1.90	$0.033
Participant Cost Test (PCT)	$5,018,742	$1,219,664	$3,799,078	4.11	$0.028
Ratepayer Impact (RIM)	$2,689,299	$4,917,684	($2,228,385)	0.55	$0.115
Societal Cost (SCT)	$5,747,581	$2,358,141	$3,389,440	2.44	$0.055

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$1,419,000	$0	$0	$1,419,000
Electric Benefits ($)	$692,411	$0	$0	$2,321,877
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	10,695,261	0	0	42,818,647
Critical Peak Hour Demand (kW)	1,822	0	0	1,822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	73.14%		

Name:	**Schools Program**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,484,983	$622,992	$861,991	2.38	$0.058
NEB Total Resource Cost (NTRC)	$906,449	$622,992	$283,457	1.45	$0.058
Total Resource Cost (TRC)	$772,037	$622,992	$149,045	1.24	$0.058
Utility Cost Test (UCT)	$772,037	$511,000	$261,037	1.51	$0.047
Participant Cost Test (PCT)	$1,281,849	$173,028	$1,108,822	7.41	$0.016
Ratepayer Impact (RIM)	$772,037	$1,287,991	($515,954)	0.60	$0.119
Societal Cost (SCT)	$1,500,713	$622,992	$877,722	2.41	$0.058

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$511,000	$0	$0	$511,000
Electric Benefits ($)	$140,684	$0	$0	$710,982
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,012,117	0	0	10,791,471
Critical Peak Hour Demand (kW)	410	0	0	410
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	77.64%		

Name:	**Schools DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$33,892,098	$13,952,911	$19,939,186	2.43	$0.817
NEB Total Resource Cost (NTRC)	$32,881,216	$13,952,911	$18,928,304	2.36	$0.817
Total Resource Cost (TRC)	$26,598,621	$13,952,911	$12,645,710	1.91	$0.817
Utility Cost Test (UCT)	$26,598,621	$15,507,307	$11,091,314	1.72	$0.908
Participant Cost Test (PCT)	$2,947,235	$0	$2,947,235	N/A	$0.000
Ratepayer Impact (RIM)	$26,598,621	$16,843,533	$9,755,088	1.58	$0.987
Societal Cost (SCT)	$33,922,861	$13,951,973	$19,970,887	2.43	$0.817

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$4,375,000	$1,527,206	$1,527,206	$20,312,258
Electric Benefits ($)	$3,377,303	$3,362,357	$3,479,549	$26,495,895
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,707,332	1,707,332	1,707,332	17,073,321
Critical Peak Hour Demand (kW)	16,618	16,618	16,618	16,618
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Schools DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2039	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$6,417,104	$3,676,628	$2,740,475	1.75	$0.994
NEB Total Resource Cost (NTRC)	$6,185,441	$3,676,628	$2,508,813	1.68	$0.994
Total Resource Cost (TRC)	$5,268,240	$3,676,628	$1,591,612	1.43	$0.994
Utility Cost Test (UCT)	$5,101,168	$4,491,848	$609,321	1.14	$1.214
Participant Cost Test (PCT)	$1,425,075	$0	$1,425,075	N/A	$0.000
Ratepayer Impact (RIM)	$5,101,168	$5,101,703	($535)	1.00	$1.379
Societal Cost (SCT)	$6,430,500	$3,676,628	$2,753,871	1.75	$0.994

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$938,000	$439,744	$439,744	$6,053,998
Electric Benefits ($)	$568,500	$561,473	$581,288	$5,090,611
Gas Benefits ($)	$16,926	$16,926	$16,926	$141,478
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	308,276	308,276	308,276	3,699,316
Critical Peak Hour Demand (kW)	3,012	3,012	3,012	3,012
Gas Savings (therms)	37,241	37,241	37,241	446,897

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$99,472,606	$20,564,308	$78,908,298	4.84	$0.025
NEB Total Resource Cost (NTRC)	$48,116,867	$20,564,308	$27,552,559	2.34	$0.025
Total Resource Cost (TRC)	$43,742,606	$20,564,308	$23,178,298	2.13	$0.025
Utility Cost Test (UCT)	$43,742,606	$8,279,700	$35,462,906	5.28	$0.010
Participant Cost Test (PCT)	$82,797,109	$16,379,477	$66,417,632	5.05	$0.020
Ratepayer Impact (RIM)	$43,742,606	$70,377,532	($26,634,926)	0.62	$0.086
Societal Cost (SCT)	$100,934,394	$20,564,308	$80,370,086	4.91	$0.025

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$8,279,700	$0	$0	$8,279,700
Electric Benefits ($)	$3,901,890	$0	$0	$40,182,631
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	68,541,946	0	0	822,503,355
Critical Peak Hour Demand (kW)	8,105	0	0	8,105
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	75.00%		

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2028	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$30,438,052	$7,209,503	$23,228,549	4.22	$0.027
NEB Total Resource Cost (NTRC)	$14,414,447	$7,209,503	$7,204,944	2.00	$0.027
Total Resource Cost (TRC)	$13,104,043	$7,209,503	$5,894,539	1.82	$0.027
Utility Cost Test (UCT)	$13,104,043	$5,216,000	$7,888,043	2.51	$0.019
Participant Cost Test (PCT)	$27,684,334	$4,613,979	$23,070,354	6.00	$0.017
Ratepayer Impact (RIM)	$13,104,043	$24,512,269	($11,408,226)	0.53	$0.091
Societal Cost (SCT)	$30,820,646	$6,720,509	$24,100,136	4.59	$0.025

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$5,216,000	$0	$0	$5,216,000
Electric Benefits ($)	$1,272,802	$0	$0	$12,118,705
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,817,730	0	0	270,630,485
Critical Peak Hour Demand (kW)	3,094	0	0	3,094
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	75.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$7,495,646	$2,630,128	$4,865,517	2.85	$2.544
NEB Total Resource Cost (NTRC)	$7,434,434	$2,630,128	$4,804,306	2.83	$2.544
Total Resource Cost (TRC)	$6,742,639	$2,630,128	$4,112,511	2.56	$2.544
Utility Cost Test (UCT)	$6,742,639	$2,747,982	$3,994,657	2.45	$2.658
Participant Cost Test (PCT)	$202,418	$0	$202,418	N/A	$0.000
Ratepayer Impact (RIM)	$6,742,639	$2,828,894	$3,913,745	2.38	$2.736
Societal Cost (SCT)	$7,497,508	$2,629,848	$4,867,661	2.85	$2.544

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$487,000	$343,757	$343,757	$3,686,052
Electric Benefits ($)	$860,840	$856,284	$885,219	$6,736,419
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	103,383	103,383	103,383	1,033,834
Critical Peak Hour Demand (kW)	4,289	4,289	4,289	4,289
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$683,579	$749,171	($65,592)	0.91	$4.718
NEB Total Resource Cost (NTRC)	$673,574	$749,171	($75,598)	0.90	$4.718
Total Resource Cost (TRC)	$612,340	$749,171	($136,832)	0.82	$4.718
Utility Cost Test (UCT)	$612,340	$814,639	($202,299)	0.75	$5.131
Participant Cost Test (PCT)	$78,103	$0	$78,103	N/A	$0.000
Ratepayer Impact (RIM)	$612,340	$826,396	($214,057)	0.74	$5.205
Societal Cost (SCT)	$683,801	$749,044	($65,243)	0.91	$4.717

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$188,000	$89,964	$89,964	$1,076,300
Electric Benefits ($)	$78,215	$77,470	$80,159	$611,875
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	15,878	15,878	15,878	158,783
Critical Peak Hour Demand (kW)	419	419	419	419
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.00%		

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2032	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$34,542,326	$6,125,384	$28,416,942	5.64	$0.171
NEB Total Resource Cost (NTRC)	$32,389,255	$6,125,384	$26,263,870	5.29	$0.171
Total Resource Cost (TRC)	$29,375,344	$6,125,384	$23,249,960	4.80	$0.171
Utility Cost Test (UCT)	$29,375,344	$7,838,267	$21,537,077	3.75	$0.219
Participant Cost Test (PCT)	$4,895,247	$0	$4,895,247	N/A	$0.000
Ratepayer Impact (RIM)	$29,375,344	$10,910,875	$18,464,469	2.69	$0.305
Societal Cost (SCT)	$34,610,357	$6,113,954	$28,496,403	5.66	$0.171

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$1,691,000	$1,691,000	$1,691,000	$9,096,905
Electric Benefits ($)	$6,508,775	$6,485,283	$6,718,307	$29,184,406
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	7,161,008	7,161,008	7,161,008	35,805,042
Critical Peak Hour Demand (kW)	31,360	31,360	31,360	31,360
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.90%		

Name:	**Commercial DR Manage**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2031	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$8,690,804	$2,367,539	$6,323,265	3.67	$0.407
NEB Total Resource Cost (NTRC)	$8,355,297	$2,367,539	$5,987,759	3.53	$0.407
Total Resource Cost (TRC)	$7,595,725	$2,367,539	$5,228,186	3.21	$0.407
Utility Cost Test (UCT)	$7,595,725	$3,730,908	$3,864,817	2.04	$0.642
Participant Cost Test (PCT)	$1,879,881	$0	$1,879,881	N/A	$0.000
Ratepayer Impact (RIM)	$7,595,725	$4,195,834	$3,399,891	1.81	$0.722
Societal Cost (SCT)	$8,700,606	$2,344,471	$6,356,135	3.71	$0.403

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$848,449	$1,106,000	$1,106,000	$4,166,449
Electric Benefits ($)	$2,076,528	$2,053,617	$2,126,045	$7,573,148
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,453,079	1,453,079	1,453,079	5,812,318
Critical Peak Hour Demand (kW)	10,943	10,943	10,943	10,943
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.22%		

Name:	**Agricultural DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2028	**DSMore Market Based**	
End Year:	2037	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$7,185,184	$4,802,646	$2,382,538	1.50	$8.507
NEB Total Resource Cost (NTRC)	$7,144,235	$4,802,646	$2,341,589	1.49	$8.507
Total Resource Cost (TRC)	$6,494,759	$4,802,646	$1,692,113	1.35	$8.507
Utility Cost Test (UCT)	$6,494,759	$7,432,261	($937,502)	0.87	$13.165
Participant Cost Test (PCT)	$2,671,419	$0	$2,671,419	N/A	$0.000
Ratepayer Impact (RIM)	$6,494,759	$7,474,065	($979,305)	0.87	$13.239
Societal Cost (SCT)	$7,186,571	$4,802,646	$2,383,925	1.50	$8.507

Utility Savings & Costs*	**2028**	**2029**	**2030**	**Total Project**
Total Utility Investment ($)	$1,003,000	$1,002,816	$1,002,816	$10,028,344
Electric Benefits ($)	$829,238	$822,964	$851,343	$6,494,104
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	56,455	56,455	56,455	564,550
Critical Peak Hour Demand (kW)	4,463	4,463	4,463	4,463
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,436,698	$982,000	$2,454,698	3.50	$0.047
NEB Total Resource Cost (NTRC)	$2,094,150	$982,000	$1,112,150	2.13	$0.047
Total Resource Cost (TRC)	$1,820,684	$982,000	$838,683	1.85	$0.047
Utility Cost Test (UCT)	$1,820,684	$982,000	$838,683	1.85	$0.047
Participant Cost Test (PCT)	$2,243,229	$0	$2,243,229	N/A	$0.000
Ratepayer Impact (RIM)	$1,820,684	$3,225,229	($1,404,546)	0.56	$0.155
Societal Cost (SCT)	$3,475,827	$982,000	$2,493,827	3.54	$0.047

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$982,000	$0	$0	$982,000
Electric Benefits ($)	$1,719,218	$0	$0	$1,719,218
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,850,437	0	0	20,850,437
Critical Peak Hour Demand (kW)	5,269	0	0	5,269
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Home Energy Reports**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,372,057	$596,000	$776,057	2.30	$0.075
NEB Total Resource Cost (NTRC)	$851,478	$596,000	$255,478	1.43	$0.075
Total Resource Cost (TRC)	$740,351	$596,000	$144,351	1.24	$0.075
Utility Cost Test (UCT)	$740,351	$596,000	$144,351	1.24	$0.075
Participant Cost Test (PCT)	$806,399	$0	$806,399	N/A	$0.000
Ratepayer Impact (RIM)	$740,351	$1,402,399	($662,048)	0.53	$0.177
Societal Cost (SCT)	$1,386,809	$596,000	$790,809	2.33	$0.075

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$596,000	$0	$0	$596,000
Electric Benefits ($)	$711,129	$0	$0	$711,129
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	7,918,852	0	0	7,918,852
Critical Peak Hour Demand (kW)	2,444	0	0	2,444
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$2,439,826	$1,906,000	$533,826	1.28	$0.139
NEB Total Resource Cost (NTRC)	$1,511,411	$1,906,000	($394,589)	0.79	$0.139
Total Resource Cost (TRC)	$1,310,851	$1,906,000	($595,149)	0.69	$0.139
Utility Cost Test (UCT)	$1,310,851	$1,906,000	($595,149)	0.69	$0.139
Participant Cost Test (PCT)	$1,444,471	$0	$1,444,471	N/A	$0.000
Ratepayer Impact (RIM)	$1,310,851	$3,257,535	($1,946,684)	0.40	$0.238
Societal Cost (SCT)	$2,464,118	$1,906,000	$558,118	1.29	$0.139

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$1,906,000	$0	$0	$1,906,000
Electric Benefits ($)	$417,973	$0	$0	$1,256,425
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,238,023	0	0	13,697,045
Critical Peak Hour Demand (kW)	1,416	0	0	1,416
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.3000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	96.80%		

Name:	**Energy Assessments and Direct Install**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$316,433	$519,000	($202,567)	0.61	$0.240
NEB Total Resource Cost (NTRC)	$169,092	$519,000	($349,908)	0.33	$0.240
Total Resource Cost (TRC)	$146,426	$519,000	($372,574)	0.28	$0.240
Utility Cost Test (UCT)	$146,426	$519,000	($372,574)	0.28	$0.240
Participant Cost Test (PCT)	$212,925	$0	$212,925	N/A	$0.000
Ratepayer Impact (RIM)	$146,426	$723,944	($577,518)	0.20	$0.335
Societal Cost (SCT)	$320,274	$519,000	($198,726)	0.62	$0.240

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$519,000	$0	$0	$519,000
Electric Benefits ($)	$58,240	$0	$0	$139,784
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	686,408	0	0	2,162,634
Critical Peak Hour Demand (kW)	193	0	0	193
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.4800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	98.59%		

Name:	**Home Energy Saver**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$3,443,358	$4,509,140	($1,065,782)	0.76	$0.192
NEB Total Resource Cost (NTRC)	$1,854,139	$4,509,140	($2,655,000)	0.41	$0.192
Total Resource Cost (TRC)	$1,594,547	$4,509,140	($2,914,593)	0.35	$0.192
Utility Cost Test (UCT)	$1,594,547	$2,528,000	($933,453)	0.63	$0.108
Participant Cost Test (PCT)	$3,532,425	$2,625,324	$907,101	1.35	$0.112
Ratepayer Impact (RIM)	$1,594,547	$4,717,643	($3,123,096)	0.34	$0.201
Societal Cost (SCT)	$3,484,176	$4,509,140	($1,024,963)	0.77	$0.192

Utility Savings & Costs*	2029	2030	2031	Total Project
Total Utility Investment ($)	$2,528,000	$0	$0	$2,528,000
Electric Benefits ($)	$415,675	$0	$0	$1,497,381
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,939,795	0	0	23,427,411
Critical Peak Hour Demand (kW)	1,300	0	0	1,300
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	84.61%		

Name:	**Home Energy Saver**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$3,786,454	$2,651,225	$1,135,229	1.43	$0.091
NEB Total Resource Cost (NTRC)	$1,697,733	$2,651,225	($953,493)	0.64	$0.091
Total Resource Cost (TRC)	$1,476,289	$2,651,225	($1,174,936)	0.56	$0.091
Utility Cost Test (UCT)	$1,476,289	$1,042,000	$434,289	1.42	$0.036
Participant Cost Test (PCT)	$3,998,987	$2,144,764	$1,854,223	1.86	$0.073
Ratepayer Impact (RIM)	$1,476,289	$3,673,346	($2,197,056)	0.40	$0.126
Societal Cost (SCT)	$3,837,161	$2,651,225	$1,185,936	1.45	$0.091

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$1,042,000	$0	$0	$1,042,000
Electric Benefits ($)	$154,324	$0	$0	$1,424,013
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,811,273	0	0	29,211,579
Critical Peak Hour Demand (kW)	308	0	0	308
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	76.06%		

Name:	**Residential HVAC**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$4,328,116	$4,389,048	($60,933)	0.99	$0.199
NEB Total Resource Cost (NTRC)	$2,902,637	$4,389,048	($1,486,411)	0.66	$0.199
Total Resource Cost (TRC)	$2,496,248	$4,389,048	($1,892,800)	0.57	$0.199
Utility Cost Test (UCT)	$2,496,248	$3,171,000	($674,752)	0.79	$0.144
Participant Cost Test (PCT)	$4,378,613	$1,665,176	$2,713,437	2.63	$0.076
Ratepayer Impact (RIM)	$2,496,248	$5,227,796	($2,731,547)	0.48	$0.237
Societal Cost (SCT)	$4,366,353	$4,389,048	($22,695)	0.99	$0.199

Utility Savings & Costs*	2029	2030	2031	Total Project
Total Utility Investment ($)	$3,171,000	$0	$0	$3,171,000
Electric Benefits ($)	$425,220	$0	$0	$2,383,334
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	3,372,216	0	0	22,026,883
Critical Peak Hour Demand (kW)	1,604	0	0	1,604
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	16.2800%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	76.86%		

Name:	**Residential HVAC**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,735,493	$1,436,560	$298,933	1.21	$0.317
NEB Total Resource Cost (NTRC)	$1,468,351	$1,436,560	$31,791	1.02	$0.317
Total Resource Cost (TRC)	$1,276,827	$1,436,560	($159,733)	0.89	$0.317
Utility Cost Test (UCT)	$1,276,827	$902,000	$374,827	1.42	$0.199
Participant Cost Test (PCT)	$1,057,572	$733,410	$324,162	1.44	$0.162
Ratepayer Impact (RIM)	$1,276,827	$1,300,238	($23,411)	0.98	$0.287
Societal Cost (SCT)	$1,741,753	$1,436,560	$305,193	1.21	$0.317

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$902,000	$0	$0	$902,000
Electric Benefits ($)	$164,148	$0	$0	$1,247,858
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	452,438	0	0	4,537,040
Critical Peak Hour Demand (kW)	822	0	0	822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	79.00%		

Name:	**Low Income**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$812,523	$4,366,000	($3,553,477)	0.19	$0.718
NEB Total Resource Cost (NTRC)	$414,931	$4,366,000	($3,951,069)	0.10	$0.718
Total Resource Cost (TRC)	$331,945	$4,366,000	($4,034,055)	0.08	$0.718
Utility Cost Test (UCT)	$331,945	$4,366,000	($4,034,055)	0.08	$0.718
Participant Cost Test (PCT)	$521,061	$0	$521,061	N/A	$0.000
Ratepayer Impact (RIM)	$331,945	$4,687,061	($4,555,116)	0.07	$0.804
Societal Cost (SCT)	$822,509	$4,366,000	($3,543,491)	0.19	$0.718

Utility Savings & Costs*	2029	2030	2031	Total Project
Total Utility Investment ($)	$4,366,000	$0	$0	$4,366,000
Electric Benefits ($)	$28,445	$0	$0	$303,822
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	468,868	0	0	6,079,239
Critical Peak Hour Demand (kW)	70	0	0	70
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	Benefits (PV)	Costs (PV)	Net Benefits (PV)	B/C Ratio	Cost of Conserved Energy ($/kWh)
NEB Total Resource 2.0 (NTRC 2.0)	$260,500	$1,242,000	($981,500)	0.21	$0.618
NEB Total Resource Cost (NTRC)	$130,569	$1,242,000	($1,111,431)	0.11	$0.618
Total Resource Cost (TRC)	$104,455	$1,242,000	($1,137,545)	0.08	$0.618
Utility Cost Test (UCT)	$104,455	$1,242,000	($1,137,545)	0.08	$0.618
Participant Cost Test (PCT)	$174,731	$0	$174,731	N/A	$0.000
Ratepayer Impact (RIM)	$104,455	$1,416,731	($1,312,276)	0.07	$0.705
Societal Cost (SCT)	$263,737	$1,242,000	($978,263)	0.21	$0.618

Utility Savings & Costs*	2029	2030	2031	Total Project
Total Utility Investment ($)	$1,242,000	$0	$0	$1,242,000
Electric Benefits ($)	$9,257	$0	$0	$97,602
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	157,817	0	0	2,008,413
Critical Peak Hour Demand (kW)	23	0	0	23
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		Secondary Benefits	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,085,534	$974,586	$110,948	1.11	$37.850
NEB Total Resource Cost (NTRC)	$1,083,743	$974,586	$109,158	1.11	$37.850
Total Resource Cost (TRC)	$866,995	$974,586	($107,591)	0.89	$37.850
Utility Cost Test (UCT)	$792,165	$1,090,841	($298,676)	0.73	$42.365
Participant Cost Test (PCT)	$213,276	$0	$213,276	N/A	$0.000
Ratepayer Impact (RIM)	$792,165	$1,187,861	($395,697)	0.67	$46.133
Societal Cost (SCT)	$1,089,319	$974,586	$114,734	1.12	$37.850

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$140,000	$132,752	$132,752	$1,498,644
Electric Benefits ($)	$99,108	$102,434	$103,749	$792,034
Gas Benefits ($)	$6,411	$6,411	$6,411	$47,339
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,575	2,575	2,575	25,749
Critical Peak Hour Demand (kW)	503	503	503	503
Gas Savings (therms)	7,650	7,650	7,650	76,500

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	100.00%		

Name:	**Low Income DR**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$328,578	$642,406	($313,828)	0.51	$40.589
NEB Total Resource Cost (NTRC)	$327,465	$642,406	($314,941)	0.51	$40.589
Total Resource Cost (TRC)	$261,972	$642,406	($380,434)	0.41	$40.589
Utility Cost Test (UCT)	$212,331	$714,147	($501,816)	0.30	$45.122
Participant Cost Test (PCT)	$157,248	$0	$157,248	N/A	$0.000
Ratepayer Impact (RIM)	$212,331	$799,654	($587,323)	0.27	$50.525
Societal Cost (SCT)	$331,088	$642,406	($311,318)	0.52	$40.589

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$92,000	$86,958	$86,958	$976,552
Electric Benefits ($)	$26,480	$27,394	$27,726	$212,278
Gas Benefits ($)	$5,672	$5,672	$5,672	$42,036
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,583	1,583	1,583	15,827
Critical Peak Hour Demand (kW)	145	145	145	145
Gas Savings (therms)	12,480	12,480	12,480	124,800

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	25.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Residential DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2040	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$57,965,798	$18,806,967	$39,158,831	3.08	$0.347
NEB Total Resource Cost (NTRC)	$54,191,195	$18,806,967	$35,384,228	2.88	$0.347
Total Resource Cost (TRC)	$47,114,584	$18,806,967	$28,307,617	2.51	$0.347
Utility Cost Test (UCT)	$45,314,451	$26,969,614	$18,344,837	1.68	$0.497
Participant Cost Test (PCT)	$15,789,812	$0	$15,789,812	N/A	$0.000
Ratepayer Impact (RIM)	$45,314,451	$34,180,237	$11,134,214	1.33	$0.630
Societal Cost (SCT)	$58,148,181	$18,768,882	$39,379,298	3.10	$0.346

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$9,768,000	$2,290,851	$2,290,851	$34,471,908
Electric Benefits ($)	$5,616,030	$5,803,286	$5,889,259	$45,038,633
Gas Benefits ($)	$154,222	$154,222	$154,222	$1,138,816
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	5,424,100	5,424,100	5,424,100	54,241,003
Critical Peak Hour Demand (kW)	27,607	27,607	27,607	27,607
Gas Savings (therms)	193,661	193,661	193,661	1,936,609

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.01%		

Name:	**Residential DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2040	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$11,230,819	$3,706,543	$7,524,277	3.03	$0.683
NEB Total Resource Cost (NTRC)	$10,849,295	$3,706,543	$7,142,752	2.93	$0.683
Total Resource Cost (TRC)	$9,433,349	$3,706,543	$5,726,807	2.55	$0.683
Utility Cost Test (UCT)	$9,100,669	$5,522,458	$3,578,211	1.65	$1.018
Participant Cost Test (PCT)	$2,993,817	$0	$2,993,817	N/A	$0.000
Ratepayer Impact (RIM)	$9,100,669	$6,577,547	$2,523,123	1.38	$1.212
Societal Cost (SCT)	$11,257,012	$3,687,837	$7,569,175	3.05	$0.680

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$2,430,000	$436,453	$436,453	$6,822,099
Electric Benefits ($)	$1,129,496	$1,168,878	$1,184,046	$9,082,544
Gas Benefits ($)	$37,994	$37,994	$37,994	$281,717
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	542,497	542,497	542,497	5,424,970
Critical Peak Hour Demand (kW)	6,095	6,095	6,095	6,095
Gas Savings (therms)	91,833	91,833	91,833	918,969

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Battery Storage DR Build**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2039.98	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$2,339,001	$1,012,047	$1,326,954	2.31	N/A
NEB Total Resource Cost (NTRC)	$2,339,001	$1,012,047	$1,326,954	2.31	N/A
Total Resource Cost (TRC)	$2,033,914	$1,012,047	$1,021,867	2.01	N/A
Utility Cost Test (UCT)	$2,023,542	$1,499,504	$524,037	1.35	N/A
Participant Cost Test (PCT)	$500,581	$0	$500,581	N/A	N/A
Ratepayer Impact (RIM)	$2,023,542	$1,512,628	$510,914	1.34	N/A
Societal Cost (SCT)	$2,339,519	$1,012,047	$1,327,473	2.31	N/A

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$705,000	$108,500	$108,500	$1,898,500
Electric Benefits ($)	$220,367	$227,763	$230,674	$2,023,542
Gas Benefits ($)	$788	$788	$788	$6,562
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	1,118	1,118	1,118	1,118
Gas Savings (therms)	941	941	941	11,290

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Battery Storage| DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2040	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,150,000	$389,796	$760,204	2.95	N/A
NEB Total Resource Cost (NTRC)	$1,150,000	$389,796	$760,204	2.95	N/A
Total Resource Cost (TRC)	$1,000,000	$389,796	$610,204	2.57	N/A
Utility Cost Test (UCT)	$993,094	$633,804	$359,290	1.57	N/A
Participant Cost Test (PCT)	$255,704	$0	$255,704	N/A	N/A
Ratepayer Impact (RIM)	$993,094	$645,499	$347,595	1.54	N/A
Societal Cost (SCT)	$1,150,345	$389,796	$760,549	2.95	N/A

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$264,000	$33,971	$33,971	$839,371
Electric Benefits ($)	$107,730	$111,443	$112,780	$993,094
Gas Benefits ($)	$700	$700	$700	$5,848
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	0	0	0	0
Critical Peak Hour Demand (kW)	591	591	591	591
Gas Savings (therms)	1,539	1,539	1,539	18,472

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	#DIV/0!		

Name:	**Residential DR Manage**	**Last Updated:**	
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2033	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$208,308,046	$47,027,261	$161,280,785	4.43	$0.288
NEB Total Resource Cost (NTRC)	$196,955,996	$47,027,261	$149,928,735	4.19	$0.288
Total Resource Cost (TRC)	$171,236,304	$47,027,261	$124,209,043	3.64	$0.288
Utility Cost Test (UCT)	$162,758,951	$75,705,949	$87,053,001	2.15	$0.464
Participant Cost Test (PCT)	$57,376,915	$0	$57,376,915	N/A	$0.000
Ratepayer Impact (RIM)	$162,758,951	$102,703,775	$60,055,176	1.58	$0.629
Societal Cost (SCT)	$209,031,050	$46,745,048	$162,286,002	4.47	$0.286

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$16,388,000	$16,388,252	$16,388,252	$87,817,677
Electric Benefits ($)	$35,388,068	$36,569,059	$37,107,139	$161,873,945
Gas Benefits ($)	$1,232,643	$1,232,643	$1,232,643	$5,363,016
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	32,634,859	32,634,859	32,634,859	163,174,297
Critical Peak Hour Demand (kW)	174,200	174,200	174,200	174,200
Gas Savings (therms)	1,548,019	1,548,019	1,548,019	7,740,096

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.11213		
Gas Retail Rate ($/therm)	$0.83802		
Net-to-Gross Ratio	95.00%		

Name:	**Residential DR Manage**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2035	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$40,316,236	$8,680,845	$31,635,391	4.64	$0.308
NEB Total Resource Cost (NTRC)	$38,328,146	$8,680,845	$29,647,301	4.42	$0.308
Total Resource Cost (TRC)	$33,325,924	$8,680,845	$24,645,080	3.84	$0.308
Utility Cost Test (UCT)	$31,266,286	$18,392,923	$12,873,363	1.70	$0.652
Participant Cost Test (PCT)	$16,586,221	$0	$16,586,221	N/A	$0.000
Ratepayer Impact (RIM)	$31,266,286	$24,536,691	$6,729,594	1.27	$0.870
Societal Cost (SCT)	$40,470,657	$8,555,593	$31,915,063	4.73	$0.303

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$2,890,000	$2,889,685	$2,889,685	$22,920,689
Electric Benefits ($)	$4,975,102	$5,150,228	$5,220,446	$31,169,668
Gas Benefits ($)	$304,689	$304,689	$304,689	$1,744,124
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	4,028,500	4,028,500	4,028,500	28,199,503
Critical Peak Hour Demand (kW)	26,536	26,536	26,536	26,536
Gas Savings (therms)	736,374	736,374	736,374	5,171,268

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	15.0100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	91.00%		

Name:	**Schools Program**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$5,794,976	$2,713,141	$3,081,834	2.14	$0.063
NEB Total Resource Cost (NTRC)	$3,208,387	$2,713,141	$495,245	1.18	$0.063
Total Resource Cost (TRC)	$2,595,362	$2,713,141	($117,779)	0.96	$0.063
Utility Cost Test (UCT)	$2,595,362	$1,774,000	$821,362	1.46	$0.041
Participant Cost Test (PCT)	$5,120,456	$1,219,664	$3,900,792	4.20	$0.028
Ratepayer Impact (RIM)	$2,595,362	$5,272,557	($2,677,195)	0.49	$0.123
Societal Cost (SCT)	$5,869,394	$2,713,141	$3,156,253	2.16	$0.063

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$1,774,000	$0	$0	$1,774,000
Electric Benefits ($)	$665,524	$0	$0	$2,243,897
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	10,697,322	0	0	42,816,645
Critical Peak Hour Demand (kW)	1,822	0	0	1,822
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	73.14%		

Name:	**Schools Program**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$1,573,895	$674,992	$898,904	2.33	$0.063
NEB Total Resource Cost (NTRC)	$946,576	$674,992	$271,584	1.40	$0.063
Total Resource Cost (TRC)	$806,214	$674,992	$131,222	1.19	$0.063
Utility Cost Test (UCT)	$806,214	$563,000	$243,214	1.43	$0.052
Participant Cost Test (PCT)	$1,293,421	$173,028	$1,120,394	7.48	$0.016
Ratepayer Impact (RIM)	$806,214	$1,340,010	($533,796)	0.60	$0.124
Societal Cost (SCT)	$1,591,110	$674,992	$916,118	2.36	$0.063

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$563,000	$0	$0	$563,000
Electric Benefits ($)	$133,775	$0	$0	$735,829
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	2,012,977	0	0	10,791,566
Critical Peak Hour Demand (kW)	410	0	0	410
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	77.64%		

Name:	**Schools DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$34,152,088	$13,952,911	$20,199,177	2.45	$0.823
NEB Total Resource Cost (NTRC)	$33,055,887	$13,952,911	$19,102,976	2.37	$0.823
Total Resource Cost (TRC)	$26,739,918	$13,952,911	$12,787,007	1.92	$0.823
Utility Cost Test (UCT)	$26,739,918	$15,598,450	$11,141,468	1.71	$0.920
Participant Cost Test (PCT)	$3,029,248	$0	$3,029,248	N/A	$0.000
Ratepayer Impact (RIM)	$26,739,918	$16,925,910	$9,814,008	1.58	$0.998
Societal Cost (SCT)	$34,180,821	$13,951,973	$20,228,848	2.45	$0.823

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$4,375,000	$1,527,206	$1,527,206	$20,288,815
Electric Benefits ($)	$3,324,794	$3,437,969	$3,487,382	$26,640,951
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,696,132	1,696,132	1,696,132	16,961,317
Critical Peak Hour Demand (kW)	16,618	16,618	16,618	16,618
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	23.6200%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Schools DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Residential	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2040	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$6,532,140	$3,676,628	$2,855,511	1.78	$0.992
NEB Total Resource Cost (NTRC)	$6,282,480	$3,676,628	$2,605,851	1.71	$0.992
Total Resource Cost (TRC)	$5,350,890	$3,676,628	$1,674,261	1.46	$0.992
Utility Cost Test (UCT)	$5,183,818	$4,491,848	$691,970	1.15	$1.212
Participant Cost Test (PCT)	$1,425,574	$0	$1,425,574	N/A	$0.000
Ratepayer Impact (RIM)	$5,183,818	$5,102,202	$81,615	1.02	$1.377
Societal Cost (SCT)	$6,546,726	$3,676,628	$2,870,098	1.78	$0.992

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$938,000	$439,744	$439,744	$6,053,998
Electric Benefits ($)	$558,753	$578,637	$586,274	$5,170,472
Gas Benefits ($)	$16,926	$16,926	$16,926	$141,478
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	308,747	308,747	308,747	3,704,963
Critical Peak Hour Demand (kW)	3,012	3,012	3,012	3,012
Gas Savings (therms)	37,241	37,241	37,241	446,897

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	17.4100%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.10742		
Gas Retail Rate ($/therm)	$0.45449		
Net-to-Gross Ratio	100.00%		

Name:	**Business Energy Services**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$101,424,591	$21,392,058	$80,032,533	4.74	$0.026
NEB Total Resource Cost (NTRC)	$46,279,932	$21,392,058	$24,887,874	2.16	$0.026
Total Resource Cost (TRC)	$42,072,666	$21,392,058	$20,680,608	1.97	$0.026
Utility Cost Test (UCT)	$42,072,666	$9,107,450	$32,965,216	4.62	$0.011
Participant Cost Test (PCT)	$82,790,676	$16,379,477	$66,411,199	5.05	$0.020
Ratepayer Impact (RIM)	$42,072,666	$71,200,457	($29,127,791)	0.59	$0.087
Societal Cost (SCT)	$102,795,022	$21,392,058	$81,402,964	4.81	$0.026

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$9,107,450	$0	$0	$9,107,450
Electric Benefits ($)	$3,736,426	$0	$0	$38,744,325
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	68,536,621	0	0	822,439,449
Critical Peak Hour Demand (kW)	8,105	0	0	8,105
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	75.00%		

Name:	**Business Energy Services**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2029	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$32,932,677	$7,583,974	$25,348,703	4.34	$0.028
NEB Total Resource Cost (NTRC)	$15,739,543	$7,583,974	$8,155,569	2.08	$0.028
Total Resource Cost (TRC)	$14,308,675	$7,583,974	$6,724,701	1.89	$0.028
Utility Cost Test (UCT)	$14,308,675	$5,737,000	$8,571,675	2.49	$0.021
Participant Cost Test (PCT)	$27,875,433	$4,613,979	$23,261,454	6.04	$0.017
Ratepayer Impact (RIM)	$14,308,675	$25,030,064	($10,721,389)	0.57	$0.093
Societal Cost (SCT)	$33,372,274	$7,046,137	$26,326,137	4.74	$0.026

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$5,737,000	$0	$0	$5,737,000
Electric Benefits ($)	$1,205,127	$0	$0	$13,161,906
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	20,814,272	0	0	270,585,538
Critical Peak Hour Demand (kW)	3,094	0	0	3,094
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	75.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$7,561,043	$2,714,294	$4,846,749	2.79	$2.388
NEB Total Resource Cost (NTRC)	$7,487,576	$2,714,294	$4,773,282	2.76	$2.388
Total Resource Cost (TRC)	$6,790,836	$2,714,294	$4,076,543	2.50	$2.388
Utility Cost Test (UCT)	$6,790,836	$2,832,147	$3,958,689	2.40	$2.491
Participant Cost Test (PCT)	$210,807	$0	$210,807	N/A	$0.000
Ratepayer Impact (RIM)	$6,790,836	$2,921,113	$3,869,723	2.32	$2.570
Societal Cost (SCT)	$7,562,969	$2,714,013	$4,848,955	2.79	$2.388

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$536,000	$349,265	$349,265	$3,784,625
Electric Benefits ($)	$848,386	$876,965	$888,542	$6,784,204
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	113,674	113,674	113,674	1,136,737
Critical Peak Hour Demand (kW)	4,289	4,289	4,289	4,289
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	96.00%		

Name:	**Commercial DR Build**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$692,722	$786,859	($94,137)	0.88	$4.398
NEB Total Resource Cost (NTRC)	$680,536	$786,859	($106,322)	0.86	$4.398
Total Resource Cost (TRC)	$618,669	$786,859	($168,189)	0.79	$4.398
Utility Cost Test (UCT)	$618,669	$852,326	($233,657)	0.73	$4.764
Participant Cost Test (PCT)	$79,688	$0	$79,688	N/A	$0.000
Ratepayer Impact (RIM)	$618,669	$865,574	($246,904)	0.71	$4.838
Societal Cost (SCT)	$693,030	$786,731	($93,701)	0.88	$4.398

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$207,000	$92,879	$92,879	$1,121,533
Electric Benefits ($)	$77,003	$79,693	$80,690	$618,010
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	17,890	17,890	17,890	178,904
Critical Peak Hour Demand (kW)	419	419	419	419
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	94.00%		

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	NPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2033	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$53,640,902	$8,876,714	$44,764,188	6.04	$0.207
NEB Total Resource Cost (NTRC)	$50,783,722	$8,876,714	$41,907,008	5.72	$0.207
Total Resource Cost (TRC)	$46,058,155	$8,876,714	$37,181,441	5.19	$0.207
Utility Cost Test (UCT)	$46,058,155	$11,379,881	$34,678,274	4.05	$0.265
Participant Cost Test (PCT)	$6,307,235	$0	$6,307,235	N/A	$0.000
Ratepayer Impact (RIM)	$46,058,155	$15,062,031	$30,996,124	3.06	$0.351
Societal Cost (SCT)	$53,717,424	$8,860,010	$44,857,415	6.06	$0.206

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$2,454,000	$2,454,000	$2,454,000	$13,208,067
Electric Benefits ($)	$10,014,045	$10,353,913	$10,509,892	$45,831,579
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	8,581,606	8,581,606	8,581,606	42,908,029
Critical Peak Hour Demand (kW)	49,476	49,476	49,476	49,476
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.48%	Other Savings	$0
Rate Escalator	3.40%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	4.056%	Measure Life	100%
Line Loss (Demand)	10.46%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$80,562	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.2600%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.09650		
Gas Retail Rate ($/therm)	$0.46527		
Net-to-Gross Ratio	97.22%		

Name:	**Commercial DR Manage**	**Last Updated:**	
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2032	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$14,091,486	$4,280,248	$9,811,238	3.29	$0.692
NEB Total Resource Cost (NTRC)	$13,686,092	$4,280,248	$9,405,844	3.20	$0.692
Total Resource Cost (TRC)	$12,441,902	$4,280,248	$8,161,654	2.91	$0.692
Utility Cost Test (UCT)	$12,441,902	$6,274,792	$6,167,110	1.98	$1.014
Participant Cost Test (PCT)	$2,546,882	$0	$2,546,882	N/A	$0.000
Ratepayer Impact (RIM)	$12,441,902	$6,769,670	$5,672,232	1.84	$1.094
Societal Cost (SCT)	$14,102,911	$4,246,501	$9,856,410	3.32	$0.686

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$1,740,000	$1,740,000	$1,740,000	$6,960,000
Electric Benefits ($)	$3,302,159	$3,418,055	$3,462,358	$12,413,655
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	1,546,690	1,546,690	1,546,690	6,186,762
Critical Peak Hour Demand (kW)	17,850	17,850	17,850	17,850
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	95.43%		

Name:	**Agricultural DR Build**	**Last Updated:**	4/23/2026
Customer Sector:	Commercial	**Avg Measure Life:**	
Company:	SPPC		
Start Year:	2029	**DSMore Market Based**	
End Year:	2038	**Scenario - Base**	
Notes:			

Stakeholder Perspectives & Tests	**Benefits (PV)**	**Costs (PV)**	**Net Benefits (PV)**	**B/C Ratio**	**Cost of Conserved Energy ($/kWh)**
NEB Total Resource 2.0 (NTRC 2.0)	$7,254,917	$5,625,387	$1,629,530	1.29	$8.672
NEB Total Resource Cost (NTRC)	$7,199,474	$5,625,387	$1,574,087	1.28	$8.672
Total Resource Cost (TRC)	$6,544,976	$5,625,387	$919,589	1.16	$8.672
Utility Cost Test (UCT)	$6,544,976	$8,839,768	($2,294,792)	0.74	$13.627
Participant Cost Test (PCT)	$3,262,414	$0	$3,262,414	N/A	$0.000
Ratepayer Impact (RIM)	$6,544,976	$8,887,801	($2,342,825)	0.74	$13.701
Societal Cost (SCT)	$7,256,361	$5,625,387	$1,630,974	1.29	$8.672

Utility Savings & Costs*	**2029**	**2030**	**2031**	**Total Project**
Total Utility Investment ($)	$1,193,000	$1,192,719	$1,192,719	$11,927,471
Electric Benefits ($)	$816,187	$844,405	$854,448	$6,542,605
Gas Benefits ($)	$0	$0	$0	$0
Incremental Energy & Demand Savings:				
Electric Savings (kWh)	64,868	64,868	64,868	648,676
Critical Peak Hour Demand (kW)	4,463	4,463	4,463	4,463
Gas Savings (therms)	0	0	0	0

*Savings in this Section are Adjusted for Line Loss and Net-to-Gross

Financial Data		**Secondary Benefits**	
Discount Rate	7.38%	Other Savings	$0
Rate Escalator	4.57%		
Inflation Rate (T&D)	2.25%	**Scenarios**	
Line Loss (Energy)	5.203%	Measure Life	100%
Line Loss (Demand)	10.37%	Energy Savings	100%
Avoided T&D Capacity ($/MW)	$65,713	Avoided Energy Cost	100%
Environmental Adder (SCT Only)	5.00%	Avoided Capacity Cost	100%
Non-Energy Benefit Adder (NTRC)	10.0000%	Incremental Measure Cost	100%
Electric Retail Rate ($/kWh)	$0.08777		
Gas Retail Rate ($/therm)	$0.40278		
Net-to-Gross Ratio	100.00%		